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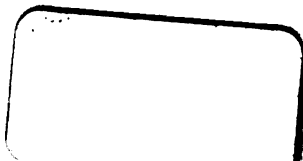
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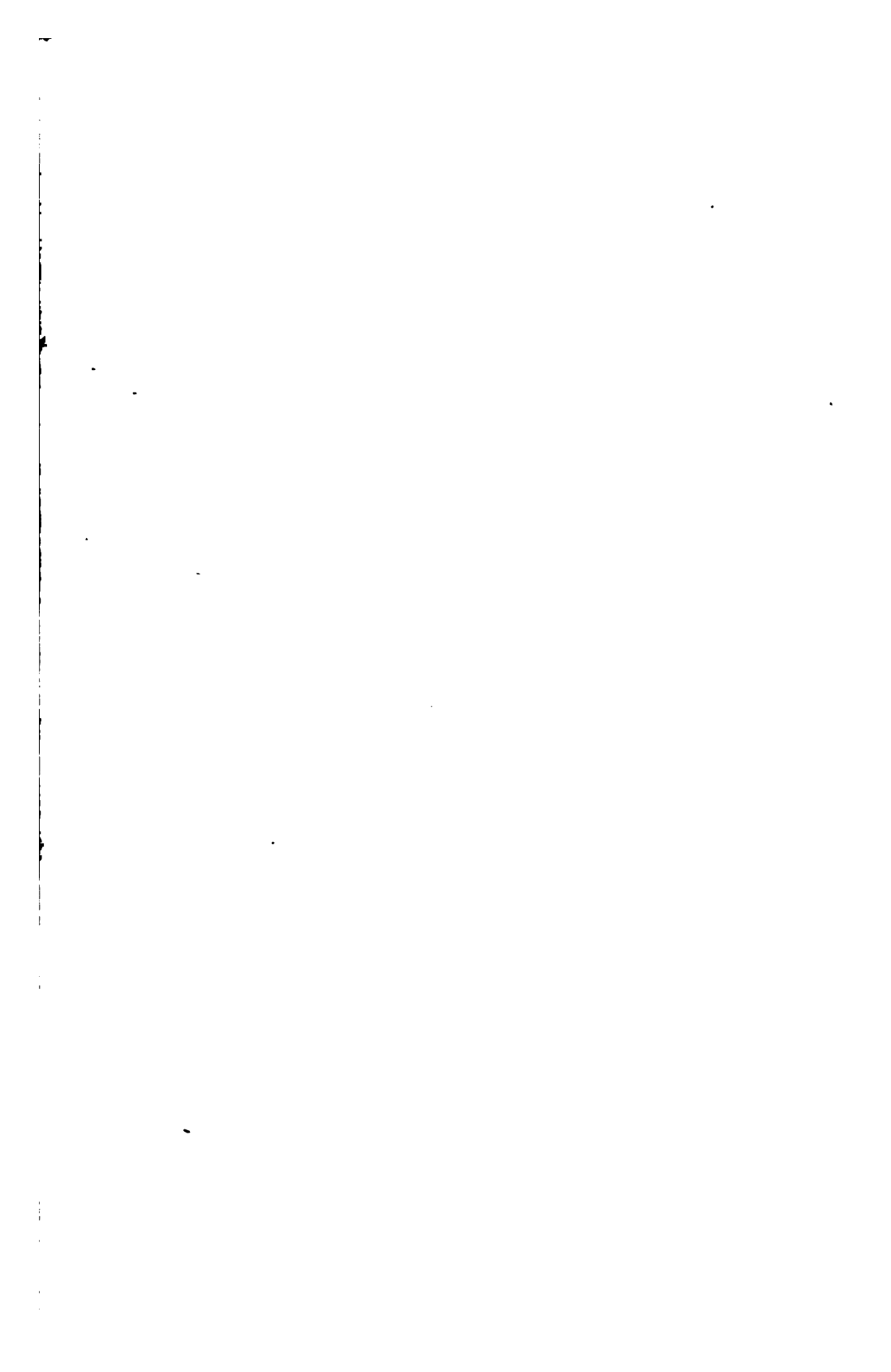
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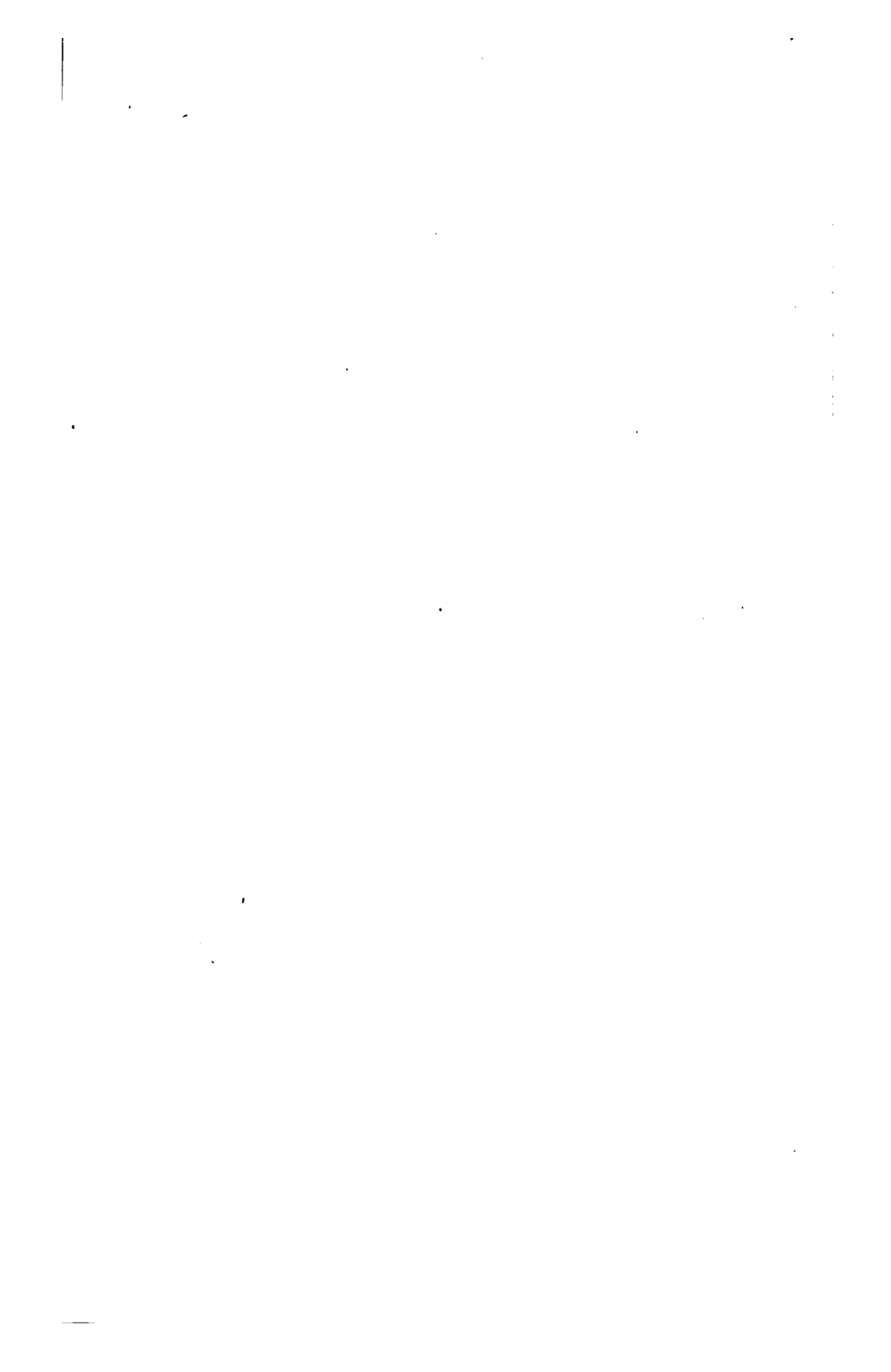
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Original Contributions.

ARTICLE I.

CLINICAL REMARKS UPON DISEASES OF THE INTERNAL EAR. By
D. B. ST. JOHN ROOSA, M. D., Professor in the University of
the City of New York.

In the days when even the gross anatomy of the ear was little studied, the diseases of the *middle* ear were almost universally confounded with those of the *internal* ear. Hence, in much of the older literature it is not easy to tell whether the middle ear or the labyrinth is meant when diseases of the "*internal ear*" are spoken of. The true classification is now widely appreciated, so that it hardly need be mentioned in such a paper as the one now presented. Yet it may be well to state that the diseases of the ear naturally divide themselves, 1st, into those of the auricle, auditory canal and outer layer of the drumhead, *external ear*; 2d, into those of the tympanic cavity, Eustachian tube and mastoid cells, *middle ear*; and 3d, into those affecting the labyrinth (vestibule, semi-circular canals and cochlea) and the auditory nerve, *internal ear*. It is of the diseases of the third part of the ear that I wish to speak.

That there are well defined diseases of the internal ear, I think admits of no more doubt than that there are diseases of

the retina and optic nerve; unfortunately, however, we have not yet been furnished with means of diagnosis for the ear that at all correspond with the ophthalmoscope, so that we meet with more cases of aural disease whose correct and exact diagnosis is different, than we find in examining the eye. We have, however, in the diagnosis of aural disease certain aids which I wish were more fully appreciated and employed. I will attempt to show how the diagnosis of disease of the internal ear may usually be reached. In the first place, the history of an aural case is in general more important than it is in diseases of the eye. We certainly care very little for the history of a case of incipient cataract. One glance at the eye with the ophthalmoscope is worth all the patient's descriptions of his impaired vision. But if we do not find impacted wax, or an ulcerating tympanic membrane, or a catarrhal pharynx and sunken membrana tympani, and if the inflation of the drum does not improve the hearing power, we become at once very much interested in the history of the case, for the inner wall of the tympanic cavity, with the important articulation of the stapes, and the vestibule, the semi-circular canals and cochlea, are as completely hidden from our view as if they were beyond the range of vision.

The first point, then, as has been intimated, that is important in the diagnosis of disease of the labyrinth and auditory nerve, is to exclude all probable sources of origin in the outer parts of the ear. Inspection by means of the speculum and the otoscope, together with the examination of the pharynx and the Eustachian tube—the latter by means of the catheter and Politzer's method of inflation—in practiced hands, will soon tell us if there be at least any decided disease of these parts. When there were only imperfect means of examining the drumhead, and before there was an effective and simple means of inflating the ear, the profession fell into the habit of calling many cases *nervous deafness*, which we now know to be simply inflammations of a plastic character, affecting the ossicles and mucous membrane of the tympanum. These are to be carefully distinguished from those of the labyrinth. After the negative conclusion a second point may be made by the use of the tuning-fork. It is pretty well settled that a vibrating tuning-fork is more intensely heard when the resonance of the tympanic cavity is increased, and that it may be increased by accumulations of mucus or pus in it, or by a simple inflammatory process which thickens its lining membrane, and

which renders its ossicles rigid. If the sound of a tuning-fork, when placed upon the skull, be intensified in the diseased ear, we may conclude there is disease of the middle ear, and that there is an affection of the labyrinth or auditory nerve if it is not, for no amount of increase of the resonating capacity of a drum will stimulate a diseased nerve into much better perception of sound than it had before. Hence if our examinations up to the point of using the tuning-fork have furnished only negative results, we may find an objective point by the use of the tuning-fork.

The piano also becomes an aid in diagnosis, for experience shows that when the nerve is injured certain notes, usually the low ones, are better heard than others. Even deaf mutes, whose hearing power for speech is absolutely nothing, will often hear the low notes of a piano, especially when the sound is conducted to their ears by means of a speaking tube. This difference in power seems to me to point unmistakably to disease of the *perceptive* rather than of the *conductive* apparatus, just as the inability to perceive certain colors is probably dependent upon disease of the retina, or optic nerve.

The amount of the impairment of hearing will also aid us in our diagnosis. I believe that there are very few, if any, cases of absolute deafness for speech that do not depend either primarily or secondarily upon disease of the labyrinth. When a person can not hear any words however loudly spoken through a tube, or directly in his ear, I feel sure that whatever else he may have, he has also disease of the internal ear. I know of no cases of disease of the middle ear alone which produce loss of hearing such as this.

The way in which the hearing was lost also has much to do in explaining the situation of the lesion. Deafness from disease of the labyrinth is apt to occur suddenly. It is true that deafness or impairment of hearing occurs suddenly in the case of impacted cerumen and in some cases of catarrhal deafness, but absolute deafness never. Inspection, however, will soon detect these conditions and treatment will relieve them, so that we are in no danger if we know at all how to examine an ear, of confounding a case of disease of the labyrinth with these. Post mortem examinations of ears that were examined before death, have shown us that hemorrhages and exudations into the semi-circular canals and upon the cochlea and in the

meatus auditorius internus have caused some cases of sudden and profound deafness. Tumors also have been found pressing upon the trunk of the nerve. I think the absolute incurability of certain cases of so-called affections of the middle ear is often due to the advance of the disease to the nerve, which slowly but steadily undergoes atrophy. If we were able to diagnosticate diseases of the labyrinth more readily and exactly when they are secondary to diseases of the tympanic cavity, we should be saved some halting opinions and unnecessary treatment.

Painful sensations in the ears in the midst of noise, or on exposure, to ordinary sounds, are to my mind, indications of disease of the nerve. Sound is not usually unpleasant to ears, unless in cases where we have reason to suspect at least hyperæmia of the labyrinth. This hyperæmia may, of course, occur from a hyperæmia of the tympanum or independently, or from a disease of the membranes of the brain, or of the brain itself.

As is well known, quite a proportion of persons with impaired hearing hear very well in a noisy place; in the railway cars, for example. A great many explanations of this phenomenon have been given, and although none of them are adequate and satisfactory, I believe that one fact may be deduced from it, that is, that deaf persons whose *hearing is not so improved* have an affection of the internal ear.

The causes of disease of the internal ear are numerous, but among the more important are concussions and syphilis. A slight box upon the ear may so injuriously affect the acoustic nerve as finally to cause deafness, probably dependent upon atrophy of the nerve. I have elsewhere reported a case (*Archives of Otology*), where an unexpected kiss upon the ear probably led to incurable disease of the labyrinth. The form of impairment of hearing from which boiler makers suffer is, I think, dependent upon concussion of the nerve. Telegraph operators in a very limited proportion suffer in the same way. Syphilis may affect all parts of the ear, but when it invades the labyrinth the profound deafness and the attendant symptoms, vertigo, staggering gait, pain on hearing loud or confused sounds, false or double hearing, are very distressing. Fortunately an energetic use of mercury and iodide of potassium will often relieve many or all of these symptoms, when they depend upon syphilis.

Cerebro-spinal meningitis, mumps, scarlet fever, typhoid fever,

furnish their contingent of diseases of the nerve and labyrinth; all of these affections, however, also produce, and perhaps more frequently, diseases of the middle ear. It is often difficult to determine which part of the ear is chiefly affected in a given case of loss of hearing, from an inflammation occurring during the progress of one of these constitutional diseases.

It is still an unsettled question as to how much influence large doses of quinine may have in producing disease of the ear. Certain it is that a temporary congestion of the ear is often caused by quinine. That this congestion, besides affecting the visible auditory canal, also involves the invisible tympanic cavity and labyrinth, I think, hardly admits of a doubt.

The prognosis in deafness from labyrinthian disease, except in that form resulting from syphilis, is, as yet, very unfavorable, but it is to be believed that future clinical investigations will enlarge our therapeutical resources and make it a more hopeful one.

ARTICLE II.

DIPHTHERIA AND DIPHTHERITIC LARYNGITIS—NATURE AND TREATMENT. With Cases by W. S. WATSON, M. D., of New Holland, Illinois.

This is pre-eminently a disease of childhood. Incubation uncertain, and only in exceptional cases are we enabled to ascertain the incubative period of diphtheria. Diphtheria is primary or secondary. The secondary form most frequently occurs during epidemics of other infectious diseases, and as a complication of them. Now I will ask, what has the microscope revealed in the hands of the microscopist? The following facts or appearances relative to diphtheria: That in every tissue which is the seat of diphtheritic inflammation, and in every diphtheritic pseudo-membrane, spherical bacteria occur in immense numbers; also the smaller specimens accompany them; in long continued cases where the system is infected, they are also found in the blood, and as the disease progresses they increase in numbers. The rationale of this is that they multiply fast when once started. This much is seen with the aid of the microscope, and I am very ready to acknowledge that they may be found in almost every

case of this disease, but I am unwilling to believe that they are the prime cause. I am inclined to believe that the cause is something more subtle, which produces the alarming symptoms and that a condition is thus produced favorable to their development; it may be that bacteria plays a certain part in producing diphtheritic cachexia. While this may be so, I hold that the specific principle is something yet undetected, for does not the common sequel of diphtheritic paralysis indicate that there is something peculiar in the diphtheritic poison, that is distinct in its nature from bacteria or septic poison, for those who recover from septicæmia as it occurs in surgical cases and in which bacteria are abundantly developed in the pus and in the blood, they have no special liability to paralysis.

From this and other reasons that I shall introduce, it seems highly probable that diphtheria is constitutional from the inception. With considerable observation and careful examination of clinical history, the facts thus gained will justify the conclusion. Further, it is a law in pathology that diseases which have an incubative period of a week or more, are constitutional affections. Another fact that I desire to introduce to more clearly establish the constitutional over the bacterian theory is, that we not unfrequently have the prominent symptoms of blood poisoning one or more days before there are any manifestations of diphtheria in the buccal cavity. Another reason for my disbelief in bacteria and for believing that diphtheria is dependant upon something different from bacteria, is from the treatment that I have often used in the early part of my practice. I then often had the most reliable and efficient antiseptics and disinfectants commenced at the earliest moment possible and repeated often, and I did not prevent the occurrence of undoubted symptoms of blood poisoning in the severe forms of the disease. Such strong disinfectants and antiseptics as carbolic acid, tinct. of iron and Mansul's salt, have been so thoroughly applied that all animal poison or molecules must have been destroyed, and yet blood poisoning has gone on as uniformly as though nothing had been done. Such effects, or rather no effects cause me to lose all confidence in any local applications preventing the entrance of the poison into the system. Yet I would not advise that local applications be entirely dropped as adjuvants to a more effective and rational treatment, as the local applications may prevent in a measure the septic influence. One more reason for believing in the constitu-

tional nature is the condition of the kidneys. It is evident, on account of their relation and locality, that the poison must first pass through the system before it can affect them. The occurrence of albumen in the urine with granular or hyaline casts in cases unattended with dyspnoea, affords undoubted proof of nephritis caused by the action of a specific poison within the system.

Now for the symptoms as I understand them. In the commencement we first observe redness in some portion of the mucous surface of the fauces. The color in the primary form is first of a bright red. In some cases of a dark red, which is indicative of a more vitiated condition of the blood. The dusky hue is more common in the secondary than in the primary form, and is very common in obstructive laryngitis. Within a few hours and may be a day, an elevated patch is seen, usually first on the tonsils. This patch is the starting point of the extending pseudo membrane, which becomes firmer and larger from fresh exudations underneath, all the time. The color is grayish or white and difficult of removal, and should sufficient force be used to tear it off, the surface will be raw, if not bleeding. In enumerating symptoms we know that all mucus seen in the mouth or throat is not diphtheritic by any means. As before stated, the exudation must be firm and consist chiefly of fibrine. The exudation is disposed to extend itself below the larynx upon the surface of the trachea and finally to the bronchial tubes. Wherever we have a mucous surface we may see this deposit, and wherever such deposits exist there is a continuous absorption going on of the poisonous substance, which has the effect at least of producing a certain amount of inflammation of the lymphatic vessels along which it passes, producing glandular enlargements etc. If this exudation or false membrane extends itself to the laryngeal surface, we have diphtheritic croup.

Diphtheritic croup may be a primary or secondary symptom and not unfrequently occurs at the commencement and is the predominating symptom. In other cases it supervenes after diphtheritic inflammation has been continued for many days and there are instances in which there may be only a moderate swelling of the glands and general redness of the fauceal surface, and no membranous exudation within sight of the unaided eye, while all the other symptoms may be just as alarming as those of true diphtheritic croup.

In most instances the diagnosis of diphtheria is readily made, especially is this so when the case has continued for a few days or hours. On inspection of the fauces, however, there are cases that vary from the typical form, in which the diagnosis is more difficult. These are cases where there is no exudation or pseudo-membrane in sight, and yet the disease exists within the larynx. The mucus secretion occurring upon the fauces is sometimes mistaken for false membrane of diphtheria. This is a common error and is due to a hasty examination and also due to the examination being made with too great a fear of hurting the patient rather than any difficulty in discriminating a follicular secretion or viscid secretion from the true fibrous exudation of true diphtheria. If the appearances within the buccal cavity do not give a satisfactory diagnosis, it is then only necessary to make an examination of the urine for albumen; whether it contains fibrous cysts or not, aids materially in making out the diagnosis. The examination of the urine should be made in all cases where any doubt exists at least.

Treatment. It is remarkable what a diversity of opinions there are in regard to the treatment of this disease. One relies almost entirely upon chlorate of potassia and is disposed to think he has cured some one, from the fact that his patients recovered pretty generally, when if the truth was known, he was mistaken in the diagnosis. Another wants nothing better than tinct. of iron. He claims to cure all cases of diphtheria, as he will state it to you, by saturating the system with iron. Now for what I conceive to be the indications. First, it is to sustain the patient by stimulants and tonics, thus enabling the system to throw off the poison or withstand its effects. Local applications may be employed to meet special indications, but should never be irritating.

I will now give cases of the disease which will more fully illustrate what I desire to offer.

CASE I.—Willie C., *æt.* 2½ years; called first, March 4th; on examination of each tonsil and the half arches, the diphtheritic exudation was clearly defined, with some swelling of the cervical glands; voice somewhat hoarse, with slight cough. This caused me to suspect a laryngeal trouble. While I was making the examination the child showed symptoms of dyspnœa, had strong struggles for breath, respirations hard and short. These were

evidences to me of diphtheritic croup and at the same time it was evident something must be done to give relief at once, or the child must die. The child's mouth was filled with a mucus which was tough and stringy; this made it impossible for the child to take medicine by the stomach. Inhalations now being the only chance, not having an atomizer to produce a spray, neither had I any lime; so my next best, if not as good a remedy, was a tin cup partly filled with strong vinegar, to which was added two tablespoonfuls of common salt; this was brought to a boiling point in order that the child could inhale the vapor from it, which was strongly impregnated with saline matter. This had the effect of causing the child to cough severely, and this dislodged a great quantity of mucus which relieved the difficulty in the breathing, removed the accumulations so as to admit of internal medicines. A three grain powder of turpeth mineral was administered. This caused free emesis in four or five minutes; the vomiting gave more decided relief.

The bisulphate of mercury as a remedy in croup was first brought to notice by one of my preceptors, Prof. Barker of Bellevue Medical College. Since then there have been many reports upon its effects. In this case, after the accumulations were disposed of, whisky was given in teaspoonful doses every hour and a half. Quinina sul. was given in two grain doses every third hour. A weak solution of chlorate of potassa was given also, as often as every two or three hours. The inhalation of steam was continued at intervals as indicated by the difficulty in the breathing, and the above mentioned remedies in the dose and manner given, until the child was free of the symptoms of the disease.

CASE II.—Luster B., *æt.* 7 years; called first, September 29, 1879; found the boy suffering from diphtheritic croup or diphtheritic laryngitis; temperature 100° at 6 P. M.; respiration labored; dyspnoea marked; surface bathed in moisture; moderate swelling of the tonsils; general redness of the fauces, but with no exudation within sight; patient had complained of sore throat for some eight days; glands had also been some swelled during the entire time. The boy was now in a critical condition, blood poisoning being the prominent symptom; his respirations were very much embarrassed and noisy, so as to be heard in the adjoining room; pulse 90 and small as well as irregular. Cough

was croupy, husky, muffled and stridulous. Treatment: inhalations of the vapor of slacking lime was used continually upon one side of the patient and a vapor from vinegar and salt was produced on the other side of the patient by having the same in a large iron vessel in which hot bricks were put, often enough to produce the desired vapor. Both should be used while the breathing continues hard. As soon as some slight relief was given by the steam, whisky was given in tablespoonful doses every second hour, dyspnoea being paroxysmal the boy would at times choke up much worse than at others, consequently a dose of turpeth mineral was given, three grains, and had its usual effect in about five minutes of producing free emesis. This remedy was given at such times as the membrane seemed to become loose and accumulate so as to threaten life by suffocation. Each time it gave prompt relief. The steaming was used almost continuously for three days and nights. The valuable chlorine mixture of Sir Thomas Watson was given from the earliest time possible in this case, in teaspoonful doses, every third hour. Quinina was also given often and in doses suited to the age. Topically I had applied to the throat externally, over the larynx, tinct. of iodine once in four hours; this form of treatment was continued as already given and on the fourth day breathing had become natural, temperature normal. Sixth day was discharged with none of the common sequelæ to contend with, excepting a slight amount of paralysis of the vocal cords which he has since recovered from completely.

In conclusion let me say I do not advise alcoholic stimulants in this disease for its stimulating qualities, but as an antidote to the diphtheritic poison, fully believing that it has full power in antidoting this poison, with almost if not with the same certainty that quinnia antidotes malaria.

The formula for the administration of the stimulant or antidote is:

Spts. frumenti	℥iv
Glycerine	℥iv
Aqua.....	℥iii

Mix. Sig. A tablespoonful at a dose to a child over four years, as often as every hour or two, as the urgency of the case demands. Other ages in proportion.

For fear some may be unacquainted with the formula for the

chlorine mixture, as advised in case II, I will give it extemporaneously. Chlorate potassia, grs. x; put in a large bottle, say a 16 ounce, and add one dram hydrochloric acid, C. P. Keep the mouth of the bottle closed until the violent action ceases, then add eight ounces water, shake well and add eight more and it is ready for use. A teaspoonful or two according to age, at a dose, may be given.

Reports on the Recent Progress of Medicine.

DISEASES OF THE RECTUM.

By Y. H. BOND, M. D., Collaborator for the JOURNAL.

INFLUENCE OF CONSTIPATION IN DEVELOPING DISEASES OF THE RECTUM AND ANUS.—The *Cincinnati Lancet and Clinic* contains quite a lengthy and well conceived article by Dr. Reuben A. Vance, of Cincinnati, O., on the influence of constipation in developing diseases of the rectum and anus. He assumes that modern researches have substantiated in a great degree the ideas promulgated many years since by O'Beirne, of Dublin. He drew attention to the similarity that exists between the œsophagus and the rectum—the commencement and termination of the alimentary canal; and declared that the resemblance was not limited to visual characters and anatomical appearances, but could be traced in the offices performed by the respective structures. For instance, when the canal of the œsophagus is not distended by a bolus of food, its walls are in apposition; he declared that an identical state of facts existed in the rectum—that normally the walls of the rectum were in contact and its canal closed except during the few moments following a call to the water-closet, and preceding the regular evacuation of the bowels; that coincident with the uneasy sensation that is recognized as a call to evacuate the bowels, the band of muscular fibers at the junction of the rectum and sigmoid flexure relaxes, and with this relaxation, the upper opening into the rectum becomes patent, and the fæces, heretofore con-

tained in the sigmoid flexure, pass through this orifice and enter the canal of the rectum. As a general rule this opening of the passage-way between the colon and rectum occurs but once in the twenty-four hours; if the intimation then given is heeded, and the individual retires, the bowels are easily and naturally evacuated. If, however, on the contrary, this call to the closet is resisted, the uneasy sensation, after persisting for a variable period of time, subsides, an anti-peristaltic contraction is excited in the walls of the rectum, and the feces which have passed from the colon into the rectum are returned to the cavity of the sigmoid flexure, and the walls of the rectum again fall together. He states that the fecal matter lodged in the large intestine prior to the call for defecation seems to be divided into two masses and to rest in two distinct cavities—one portion being lodged in the cœcum and the other in the sigmoid flexure.

After entering into a brief but lucid review of the anatomy of the parts about the junction of the rectum and sigmoid flexure, etc., he passes on to a consideration of the consequences of habitual constipation or neglect of heeding the uneasy sensation that precedes an evacuation of the bowels, and indicates as one of the first results a permanent distension of the canal of the rectum, forming, as it were, a reservoir for fecal accumulation, with its incident effects upon the whole pelvic circulation, especially its atonic or palsyng influence upon the muscular walls of the rectum, and consequent influence on its blood vessels, unprovided as they are with valves, and with the propelling power of the heart's impulse, broken by an opposing as well as an intervening capillary network, etc. And in connection with this chain of pathological consequences he refers many cases of fissure of the anus, abscess of the rectum, fistula in ano, internal and external hæmorrhoids, prolapsus ani and recti, stricture of the rectum; polypus of that organ, etc. As a means of obviating or remedying constipation, he urges the necessity of attending to the call of nature at a regular hour every day, and in conjunction therewith, if necessary, the use of an enema of a pint or quart of water taken in the recumbent posture, and so slowly injected that the rectal walls will not be distended, but rather force the fluid up into the colon. He thinks that a small bulbous-pointed flexible pipe, ten or twelve inches in length, should be used, so that the fluid might readily escape through the sigmoid flexure.

PENETRATION OF THE WALLS OF THE RECTUM BY THE HORN OF AN OX.—Dr. F. Gundrum, in the *Detroit Lancet* of October, 1879, reports the case of a man who was gored by an ox. The perforation was on the inner and upper aspect of the right thigh, and extended into the rectum so high up that a bougie passed along the tract of the wound into the bowel, could scarcely be reached by the finger when introduced into the rectum. Two days after the receipt of the injury the fæces began to pass through the wound, and continued to do so entirely until after the operation, as is customary for fistula in ano. On the beginning of the fourth day peritonitis supervened, which lasted into the third week. The tissues divided in the operation for his relief extended in length about seven inches, and approximated two inches in the thickest part. It was found that a soluble condition of the bowels, when the wound was bathed in fæces all the time, retarded the healing process very much, and that the wound progressed most favorably when kept scrupulously clean. This object was attained by the administration of opium in small doses, and confining the bowels as long as the patient was comfortable; then by the aid of laxatives and large warm water injections, the rectum was emptied and the bowels cleared out, and again confined. The case progressed slowly and tediously, but in six months the patient was perfectly well, and with an unimpaired sphincter. (An exceedingly fortunate issue, considering the extent of tissue divided in the operation.)

HYPODERMIC SYRINGE IN THE CURE OF PILES.—Joseph Adolphus, M. D., advocates the use of the hypodermic syringe in the cure of piles. The fluid to be used, according to his recommendation, is pure glycerine, diluted with one fourth its bulk of water, to which is added pure carbolic acid in the proportion of one part to four of the diluted glycerine. Of this mixture use 30 to 60 mm. Select for this operation a pile remote from the verge of the anus, if possible, and only inject one at a time. Very irritable piles need careful manipulation and weaker solutions than those less irritable. If the first injection proves insufficient to effect a cure, another injection may be thrown in after a week's time. Frequently an injection into a single pile will cause all others (if there happen to be more than one) to shrivel and disappear. While it is better to keep the patient quiet for two days after a pile has been injected, it is not absolutely necessary in

many cases, and some operators do not restrict the movements of their patients for even half a day.—[*Eclectic Med. Jour.*, June, 1879.

ARRANGEMENT AND DISTRIBUTION OF THE MUSCULAR FIBERS OF THE RECTUM.—I. G. Garson, M. D., of London, in a paper entitled "The Arrangement and Distribution of the Muscular Fibers of the Rectum," showed that the rectum and bladder are united by the longitudinal muscular fibers of the gut. The distance that the bladder and rectum are adherent may be divided for purposes of description, into two parts—an upper and a lower. Of those the upper is the longer. Here the two organs are united only by areolar tissue, and can be easily separated from one another; but at the lower part, the anterior longitudinal fibers of the gut, which are closer together on this than on other parts, as they pass downwards over the front of the rectum, are reflected (in the same way that the peritoneum is) from it to the bladder, and are distributed over the posterior surface of that viscus. The rectum and bladder are, therefore, firmly bound together, not only by areolar tissue, as is generally stated in anatomical works, but also by muscular fibers. This arrangement of what Dr. Garson terms recto-vesical fibers, does not appear to have been previously described; at least it is not mentioned in the principal works on the anatomy of the bladder and rectum.—[*Can. Jour. of Med. Sci.*, Oct., 1879; *Brit. Med. Jour.*

FATAL RECTAL HEMORRHAGE.—The *N. Y. Medical Record* of Sept. 27, 1879, contains the report of a case of rectal hemorrhage, resulting fatally, occurring in an infant æt. three days—by F. H. Manley, M. D., of Lawrence, Mass. The child, at birth, was stout, vigorous and well developed, and there was nothing about the labor or the mother's condition to explain the cause of the hemorrhage. A post mortem showed that the blood escaped from an opening in one of the large intestinal veins, about three inches above the anus. Had the site of the hemorrhage been known, the flow could readily have been arrested by means of a tampon, and the child's life saved. [The case is interesting, not alone because of the infrequency of the occurrence, but as indicating the necessity of recourse to every available means of diagnosis, in all cases involved in obscurity or uncertainty.]

MALIGNANT DISEASE OF THE RECTUM AND ANUS REMOVED BY EXCISION.—Considering the fact that the rectum is specially liable to the inroads of cancer—standing fifth in point of frequency of different parts of the body affected—and in view of the intense agony to which its victims are subject, and of the generally acknowledged failure of therapeutic means that have been used for its relief, the subject of cancer of the rectum becomes vested with special interest, and all cases reported, especially those seeming to point to the establishment of an improved method of treatment, attract the attentive consideration of the student of medicine. Wm. Walter, M. A., M. D., Obstetric and House Surgeon to St. Mary's Hospital, Manchester, Eng., under the care of Mr. Evart, furnishes the *London Lancet* of November, 1879, a report of a case of malignant disease of the rectum and anus, occurring to an old lady, removed by excision. The diseased tissue was confined to the anterior surface of the anus and rectum, extending upward for about one inch and a half—the caliber of the bowel still not materially affected. The diseased mass was removed by excision, after the usual method in such cases; and the patient, after about a month's stay at the hospital, was dismissed as cured. Eight months thereafter she again presented herself, complaining of trouble in the rectum. An examination revealed the existence of a scirrhus growth, about the size of a pigeon's egg, located on the lower and posterior portion of the vaginal wall, adjacent to the part removed previously. The mass removed was decided to have been epitheliomatous; and yet, nine months from the time of its removal, she presents herself with a well pronounced case of scirrhus, occurring in immediate proximity to the tissues removed. This fact is in keeping with the observation of Dr. Van Buren, who states that "in its later phases epithelial or canceroid disease usually takes the shape of scirrhus or cerebriform cancer," and is of especial import, in its corroborative tendency, of the views of Waldeyer upon the pathology of cancer, as expressed by Schröder, who says that "Waldeyer refers the origin of all the forms of cancer to the true epithelia, considering them all as epithelial tumors, which develop, without exception, from actually existing epithelium; and who, in the very rare cases where primary cancers have developed in places where there is no native epithelial soil, regards them as arising from abnormally distributed remnants of epithelial blastodermic membrane."

The carcinoma, then, are developed by normal pavement or glandular epithelium, with its ramifications into the depths of the tissues in all directions like plugs, destroying the other tissues by pressure, and forcing apart the bundles of connective tissue fibers, so as to form for itself a framework of connective tissue, and an alveolar structure for the whole tumor. According, now, to the preponderance of either this connective tissue framework, which is also partly a new formation from the irritated connective tissue or the nests of cancerous epithelium, we distinguish the hard forms, scirrhus, and the softer medullary cancer. And thus the various forms of cancer very commonly in the same individual pass one into another, at some place or time."

If this view of the pathology of cancer is correct, it is of extremely great practical importance that it should promptly receive general recognition; for the prominent specialists on diseases of the rectum are almost without exception pronounced in their opposition to operative measures, looking to the excision of the lower bowel and anus, for the cure of what they regard as true cancer of those parts. Mr. Henry Smith dismisses the subject as unworthy of respectful consideration, a species of barbarous surgery, appropriate to a bygone age. Dr. Van Buren states that "in epithelial cancer, and where the diseased parts can be circumscribed by the finger, its removal can be accomplished without danger to life; and when it is causing great distress from stricture, it is proper to consider whether the entire removal of the disease may not afford relief and prolong life;" but adds, further on, that the disease will return. Mr. Allingham thinks that removal cannot be recommended for any of the forms except epithelioma. Mr. Curling and Mr. Ashton treat of epithelioma as essentially different in nature and import from the other forms of cancer; and whilst they both advocate the propriety of excision of epithelioma, they both alike deprecate operative measures in the other varieties of cancer.

These gentlemen are in favor of the excision of epithelioma, because of the satisfactory results they have experienced from excision. And since success has been denied them when excising the other forms of cancer, therefore they conclude that epithelioma and scirrhus are different affections, rather than that they are different stages or manifestations of the same affection, as Waldeyer supposes. It does seem to me that our observations on this subject go far toward establishing the correctness of

Waldeyer's conclusions; for, assuming the correctness of his position, we can explain the infrequent recurrence of cancer that is observed after excision of epithelioma, upon the ground that its sensitive muco-cutaneous site demands for it recognition in its primary stage, when its thorough removal can be readily accomplished, and before the conservative efforts of nature have been stimulated to its removal, resulting in its translation to the glandular system and other parts of the economy.

Upon this ground we can reconcile the generally conceded observation that epithelioma and what has been termed true cancer are convertible, a fact pregnant with significance in establishing the relationship that Waldeyer assumes to exist. Upon this ground we can explain the failure that attends excision of scirrhous, etc., for occurring high up in the bowel, the disease progresses unnoticed until it has gone so far as to produce stricture of the bowel, with its chain of associate disturbances; and already nature, in her efforts of conservation, has diffused the malignant germs to other parts of the system, where sooner or later they will make themselves manifest. It seems to me that we are justified in the practical conclusion that in every case of cancer of the rectum, unless the disease has extended to a degree of hopeless enormity, the most extensive and thorough excision should characterize our efforts. We need not be sparing of tissue through fear of fecal incontinence, for experience has demonstrated that sufficient contraction may be relied upon to obviate this result in most cases.

In connection with this subject we observe that the *New York Medical Record* of September 20, 1879, contains an abstract of a report of two cases of successful excision of the rectum for malignant disease, performed by A. Van Deveer, M. D., Professor of Surgery in the Albany Medical College; also the report of a successful excision occurring at the Royal Free Hospital (under care of Mr. Evert) by M. H. Atkinson, F. R. C. S., in *Med. Press and Clinic*, August 13, 1879.

VENEREAL DISEASES.

By LEGRAND ATWOOD, M. D., Collaborator for the JOURNAL.

STUART ELBRIDGE, M. D., LECTURER ON ANATOMY, MEDICAL DEPARTMENT, GEORGETOWN UNIVERSITY, D. C., says in the *N. Y. Med. Jour.*, Oct., 1879, that he has successfully treated granular urethritic by the topical use of ergotine. In cases of stricture with glutty discharge, even after complete relief of the contraction and in others in which no lesion save granulation is to be detected, he applied ergotine directly to the diseased surface. After evacuation of the bladder and thorough irrigation of the canal by warm water, the remedy (Boujeau's) was applied in its pure state by means of the ointment syringe, the patient remaining recumbent for an hour after each treatment. The ergotine caused neither pain nor irritation.

Such cases responding favorably and opportunity offering, he was equally successful with this remedy in the treatment of obstinate gonorrhœa, even after failure of approved internal medication and the usual injections.

A novel method for introducing the ergotine was extemporized by Dr. Elbridge and is of course as applicable for the introduction of other inspissated drugs and unguents. He mounted "upon a small flexible bougie a foot of circular, closely woven, hollow lamp-wick, of a diameter about equal to that of a No. 12 English bougie. The small bougie is simply passed into the center of the wick, the lower end of the latter being securely tied. The swab is thoroughly smeared with ergotine, the remedy being well rubbed into the fibre of the cotton; then after urination and thorough irrigation of the urethra the instrument is passed to the needful depth, there to be retained for half an hour."

ON THE TREATMENT OF SYPHILIS.—J. Shelton Hill, M. D., (*Maryland Med. Journ.*, July, 1879,) says that for several years close observation upon the effect of small doses of prot. iodide of mercury, from one-sixth to one-tenth of a grain, repeated three or four times a day, in cases of undoubted syphilis has convinced him that if given when induration of a chancre begins to show itself, the chancre will fade away as the system comes under the

influence of the mercurial. To see a chancre grow under such treatment is one of the rarest of events.

If this treatment is intelligently followed up so long as the natural history of syphilis would lead one to believe that the secondary symptoms should continue, then as the period for the tertiary form approaches, discontinue the mercury and give iodide of potassium in pretty full doses for seven or eight months alternating with iodide of sodium during this time, and finally terminating this treatment by directing half an ounce of cod liver oil given in combination with fifteen or twenty drops of a syrup of iodide of iron and manganese after each meal for three months; it will, when carried out in anything like a regular course, not only render the succession of the symptoms quite irregular, but will, in many cases, prevent their appearance altogether. In those cases where the secondary and tertiary symptoms do appear, they are very much mitigated in severity and shortened in duration. If the patient can be made to follow this plan he can most certainly be cured, but usually the man or woman cannot be persuaded to follow so long a course by any ordinary plan of persuasion.

It is gratifying to see etiologists recognizing the important influence of the nervous system over the body in health and disease. Fessenden N. Otis, Professor in Genito-Urinary Diseases, College of Physicians and Surgeons, New York, in clinical lectures on the physiological pathology of syphilis (published in the *Boston Med. and Surg. Journ.*, Vol. CI, No. 13) asks: "What can and is most likely to cause long continued dilatation of capillaries and stasis of the blood?" In seeking an explanation of the roseolas eruption of syphilis, he says that inasmuch as it is known that the capillary vessels derive their nerve supply from the sympathetic nervous system, their loss of contractility and consequent dilatation, could occur only through some impression upon the sympathetic system, causing paresis of the nerves supplying the walls of the capillaries. He quotes Erasmus Wilson, 1871, as saying that the influence of the vaso-motors is involved in the production of roseolas, but that Wilson practically excluded the roseolas of syphilis, citing cases where anger and other mental emotions will bring out roseolas eruptions, in no way distinguishable from those of syphilis. He concludes by inferring that all the roseolas are the result of an impression

upon the sympathetic nervous system, a paresis of the vaso-motors of the cutaneous envelope.

ON THE ACTION OF IODOFORM.—Dr. Zeissel in the *London Med. Record*, relates his experience of the remarkable results of the use of iodoform in venereal sores. He uses a powder for sprinkling the part, consisting of 7 centigrams (little more than a grain) of iodoform in 5 grms. (75 grains) of sugar of milk. For internal use he employs the following formula: Iodoform, 1.5 grams (22 grains); white sugar, 3 grams. (45 grains); to be divided into twenty powders, of which one is taken thrice daily. He recommends this especially in the neuralgic affections of syphilis.

Translations.

FROM THE FRENCH.

EXCERPTS FROM LATE FRENCH JOURNALS. [Translated for the JOURNAL.] By Dr. A. H. OHMANN-DUMESNIL, of St. Louis.

VIRULENCE OF CADAVER POISON.—M. Colin, in a note to the Academy of Medicine made the following conclusions:

1st. The carbunculous virulence connected with the liquids and tissues of dead bodies, is an ephemeral property which disappears with greater or less rapidity; this is true of the blood, lymph, serous fluids, tissues of organs, concentrated or diluted solutions; in a word, of all solids or liquids which putrefy or are subjected to dessication, boiling, treatment with alcohol, acids, etc.

2d. This virulence disappears in from three to five days, and from the blood and most of the organs, at the highest in eight to ten days, which is the case when the liquids of cadavers are kept at a low temperature and separate from putrescible parts.

3d. The extinction of this property is not exceptional, but a fact constantly proven by the sterility of inoculations from car-

bunculous products which have putrefied or which have been otherwise modified by energetic agents.—*Gazette des Hôpitaux*, Nov. 6, 1879.

DIPHTHERIA IN PARIS.—M. Bœsnier in his report on diphtheria in Paris for the months of January to October, inclusive, of the present year, gives the following data :

Total number of cases during the first three months, 529 ; during the second three months, 468 ; during the third three months, 407 ; grand total, 1404.

The mortality was divided as follows: Number during the first three months, 115 ; during the second three months, 99 ; during the third three months, 81. Total number of deaths, 295.

In two childrens' hospitals the following additional facts were ascertained :

There were of croup 20 cases ; of these there were operated, 16, resulting in recoveries, 4, deaths, 12 ; not operated, 4, resulting in recoveries, 2, deaths, 2. There were of membranous angina, 32 ; the recoveries were, 13 ; deaths, 14 ; discharged (not cured), 4 ; continued, 1.

At the other hospital there were : cases of diphtheria, 88 ; with croup, 47 ; without croup, 36. Of those with croup there were operated 41, resulting in recoveries, 5 ; deaths, 36. Not operated, 6 ; resulting in recoveries, 4 ; deaths, 2 ; of the remaining cases, there were recoveries, 32 ; deaths, 4. Among the complications were : broncho-pneumonia, 19, measles, 11.

The cases were exceptionally virulent and extreme albuminuria very common.—*Ibid*, Nov. 8, 1879.

TRANSMISSION OF RABIES FROM MAN TO RABBITS.—M. Raynaud detailed to the Academy of Sciences experiments made by himself. He had in his service a patient with marked rabies, the man having been bitten in the upper lip by a small cur. The man willingly lent himself to the experiment. Rabbits inoculated with his blood were unaffected are still living and healthy. One inoculated with the saliva (in the ear and cellular sub-cutaneous tissue of the abdomen), became rabid in four days, frothing at the mouth and dying on the sixth day. Thirty-six hours after death an autopsy revealed nothing of any importance. Fragments of the right submaxillary gland were introduced under the skin of a rabbit ; likewise fragments of the left gland were used

to inoculate another rabbit. These rabbits succumbed, one on the fifth and the other on the sixth day; the prevailing symptom in these two being paraplegia of the hind extremities.

The author concludes that this is an indication clearly showing that human saliva inoculates, as he thinks, not only inferior animals but fellow creatures. He also adds that great care should be taken in the attentions given to those patients and in making post mortems upon their remains, as it is very easy to become exposed to the virulence of the saliva.—*La France Médicale*, Nov. 5, 1879.

FRACTURE OF THE TROCHANTER MINOR OF FEMUR.—Prof. Julliard (of Geneva) had a patient, æt. 82, who was admitted to the general hospital; gave a history of and presented the subjective symptoms of a fracture of the cervix femoris. The sudden death of the patient permitted a dissection being made. This showed a vast effusion of blood in the muscles of the thigh and about the hip. The ilio-femoral articulation was intact; no fracture of the neck, but the lesser tuberosity of the femur was literally torn off; it was completely separated from the shaft, save at one spot where it was held by a shred of periosteum.

The symptoms the patient had on entering the hospital were: deformity of the hip and thigh, ecchymosis, inability to rotate the limb outwardly. These are the symptoms of fracture of the neck. In addition there was no shortening, no crepitation and no effusion on the thigh.—*Progrès Médical*, Nov. 1, 1879.

INTRA-ARTICULAR ABRASION OF ARTICULAR FUNGI.—Prof. Liétévant, at a meeting of the Lyons Medical Society, presented several patients treated in a novel manner by himself; for intra-articular fungi. The method consists essentially in making a small external opening and introducing a scraper and by its means removing the tumor from the articular faces in small bits. The advantages he claims are: there is less tissue destroyed, there is an exact adaptation and co-adaptation of the articular surfaces of a joint; capsular ligaments are disturbed but very little; the movements of joints so operated are better and more precise than by other operations.

The author has operated on the elbow five times and with success each time, or at least with much better results than could be obtained by resection or other means.—*Lyon Médical*, Nov. 16, 1879.

FROM THE SPANISH.

DR. A. H. OHMANN-DUMESNIL, Translator.

ACUTE DELIRIUM TREMENS—RAPID CURE BY THE USE OF TARTAR EMETIC AND OPIUM.—Dr. Catañeda, resident at Paris, writes that the observations on delirium tremens are sufficiently common and that its treatment by means of tartar emetic and opium is not very recent. Graves recommended it a great deal, and in England it has been practiced to a considerable extent. Day by day the method has become less popular, until, to-day, those who employ it are among the few. This must have its reason either in the fact that wrong diagnoses were made or because the treatment was not applied at the proper time. The following case appears to add proof not only to the effectiveness of this treatment, but also to its rapidity of action.

CASE.—Mr. X, æt. 25, of a good constitution, nervous temperament, was attacked once or twice with convulsions during his first dentition; when some six years old he suffered from nervous attacks, probably of an epileptoid nature. In 1871, being implicated in the Paris Commune, he was sent to a prison on the sea coast. Here, it appears, he daily consumed a quantity of cod liver oil and rarely suffered from nervous attacks. Finally released and returning to his family, he discontinued the oil and drank excessively of liquors. He soon had the symptoms of alcoholism, tremor, etc. Whilst in a *café* with some friends he had a nervous attack and fell from his chair. He had no initial muttering, no flushing, did not bite his tongue nor lose sensation for he heard and understood all that was said. He had illusions; the wound he had received in his forehead from the fall, he attributed to a blow inflicted upon him by an imaginary enemy. He was taken home by his friends; then he had hallucinations. He failed to recognize his friends and parents and each person that entered the room was to him the public executioner or his aid coming to carry him off to the guillotine. He saw nothing but enemies in persons that happened to be present and began to see mice, reptiles and other loathsome objects. He had great agitation, profound insomnia and delirium, and became

at times so furious that few dared to approach him. A physician administered morphia, remarking that the patient's brain was affected and that he would soon die.

The author being called in, he found the patient lying on his back, with extreme and violent agitation. Illusions and hallucinations, great loquacity, pronouncing some phrases clearly and with energy, and others indistinctly and between his teeth, constant and exaggerated tremor, which was general and noticed even in his speech. The face was injected, presenting at the margin of both eyes a profound and extensive ecchymosis of a deep color, almost black. On the right side of the forehead an ecchymosis occupied the whole frontal eminence, with tumefaction and slight abrasion of the skin. He had anorexia, constipation, scanty and high colored urine and the temperature somewhat elevated.

The treatment consisted in a cold compress to the head, hot foot baths with mustard, castor and valerian to take through the night. This was on July 26.

July 27th. At 11 A. M., the patient's state was the same; same treatment ordered continued. The symptoms toward evening, became worse and the following was prescribed. Tartar emetic 0.1 grm., paregoric 1.5 grms. water 120 grms.; to take a tablespoonful of this mixture every half-hour.

July 28th. The patient, who had not slept for three days, at the third dose, fell in a slumber which lasted six hours. The same medicine continued, a tablespoonful being given every two hours.

July 29th. Had good appetite; was given an emetic (ipecac.) and the two following days a tablespoonful night and morning of the following: Tincture of gentian, quassia, colombo and cinchona, of each, 30 grms., muriate of morphia, 0.1 grm.

The cure commenced immediately and the patient rapidly returned to comparative health.—*Cronica Medico-Quirurgica de la Habana*, November, 1879.

Proceedings of Medical Societies.

TRI-STATE MEDICAL SOCIETY.

GLEANINGS FROM THE HISTORY OF MEDICINE. An address delivered in Evansville, Indiana, November 4, 1879, by J. A. IRELAND, M. D., of Louisville, Ky., President of the Tri-State Medical Society.

Gentlemen of the Tri-State Medical Society of Indiana, Illinois and Kentucky, Ladies and Gentlemen of the audience:—I am before you on this occasion for the purpose of delivering what is called the President's annual address. [Wishing to make my discourse useful rather than a mere entertainment, I shall not confine my remarks within the limits prescribed by the rigid rules of exact rhetorical composition.

We have assembled here for the one great purpose—advancement of medical science. Perhaps it would be well for us to remark that we are not representing a profession of comparatively modern origin, but one whose history dates far back in the history of mankind, even as far back as the days of good old Jacob and his son Joseph. "And Joseph commanded his servants the physicians to embalm his father; and the physicians embalmed Israel." Gen. 1: 2. This occurred nearly seventeen hundred years before the Christian era. The physicians of those days were skilled in the art of embalming in addition to their skill in the treatment of disease. Many of them, we doubt not, were eminent in their profession and were known as learned and skillful men. From this time on in sacred history, we have occasional mention of physicians and surgeons. The science of medicine was very ancient in Egypt. The Egyptians ascribe its origin to Thaut or to Hermes or to Osiris or to Isis, and some of the most learned men have thought Moses, having been instructed in all the learning of the Egyptians, must also have understood the principles of medicine.

Physicians were not so common among the Hebrews, but for the treatment of all external injuries there were surgeons of well known skill. In Jeremiah viii: 22, we have the following; "Is there no balm in Gilead? Is there no physician there?" Although this language may have been used figuratively, yet it

contains conclusive evidence that there were surgeons or physicians, known as such, six hundred years before Christ. Again, as recorded in Jeremiah xlii : 11, after the people had by riotous living debased themselves, they were told : "In vain shalt thou use many medicines." This was about six hundred and seven years before Christ.

It seems that in those days (the same as now) the people resorted to empirics and charlatans of every description, notwithstanding there were men thoroughly skilled in medicine as it was understood at that time. Old Asa called upon the physicians of his day to cure his sore feet, but we are not informed of the amount of skill they possessed. This occurred nine hundred and forty years before Christ.

When Jesus Christ appeared in Palestine there were physicians there, as we learn from Mark v : 26 ; "And had suffered many things of many physicians, etc." Again, in Luke viii : 48, "Had spent her living on physicians." Luke, the Evangelist, was an eminent physician and spirited writer, a man of great courage and noble bearing. On his last visit to the city of Achaia, it is said the priests hanged him upon an olive tree. He was then about eighty-four years of age, or about the same age of Jesus' mother. In Col. iv : 14, Luke is called by St. Paul, "The beloved physician."

The Saviour was called in a figurative sense, and is in reality a physician. "They that be whole need not a physician, but they that are sick." Matt. xii : 12.

Leaving the sacred books we go back to the time of *Æsculapius*, who was worshiped as the god of physic. From him we are sometimes called disciples of *Æsculapius*. His family was a remarkable one. Two of his sons ruled a small city in Thessaly and accompanied the Greeks to the siege of Troy.

Hippocrates is also called the father of medicine ; he lived and practiced his profession about four hundred and thirty years before Christ. He was reckoned the eighteenth in lineal descent from *Æsculapius*. His sons also followed the same profession.

Galen, who lived in the second century after Christ, put the art in better order.

Between the sixth and ninth centuries the art of medicine was in a manner lost, but from that to the thirteenth the Arabs cultivated medicine with great honor.

Within the last two centuries, Cullen, of Scotland, born 1712,

William Hunter, of England, born 1718, and his brother, John, born in 1728, placed medicine much higher than it stood in previous centuries. Many others of England, France and Germany greatly contributed to the grand and glorious work of elevating the standard of medical education.

In 1765 the first medical school was established in America. In 1768 we are told that ten young men graduated and immediately commenced practice in different portions of this country. For many years after this, the average number did not exceed five.

In 1805 several young men went from Kentucky to the city of Philadelphia to attend medical lectures. At that time they were compelled to travel on horseback, and the time required was from four to six weeks.

In 1806 Kentucky's eminent surgeon, Prof. B. W. Dudley, graduated at Philadelphia.

In 1813 the first degree of doctor of medicine ever conferred in a western college, was given to John L. McCullough, of Lexington, Ky., the only graduate on that occasion. (It seems that John L. McCullough was the entire graduating class of the spring of 1813, at Transylvania.) From so small a beginning the western schools have accomplished much towards supplying the demands of the people for medical men qualified to render aid in all emergencies. As our vast country has become settled and the population increased, the demands for more schools for the instruction of young men have been supplied, and while the western schools have been severely criticized both at home and abroad, we contend they have been from time to time furnished with as able teachers as ever stood on a rostrum in Europe. Our American schools, East, West, North and South, have to-day their *great* men, fully equal to any in Europe. Where are those bright and shining-lights that dawned in the East in the early part of the nineteenth century? Where are they? Echo answers: They are gone to their silent graves. Yes! Rush, Physic, Wistar and many others, East and West, have passed away, but their names are embalmed in the hearts of the people all over the new world. There are others still shining in the firmament of medical glory; some of our great western lights are yet glowing with a brilliancy never eclipsed by those who have gone before. Thus we may perceive the march of medical science is onward and upward. I do not belong to that class of doctors who

are eternally running down one of the grandest and noblest professions that God has given to bless the world. I believe the march of true medical science is onward and will continue to improve as fast as time and circumstances will permit. Medical men everywhere are demanding a higher education. This very naturally grows out of the great advance in general intelligence, but all this does not justify that everlasting talk of some medical men that doctors generally are fools (themselves *always* excepted). Medicine is to day far in advance of what it was ten or twenty years ago.

Why are we here on this occasion? Why have so many of our leading men come together at Evansville, to-day? Why were they induced to leave their patients, their homes with their wives and darling children? Yea, and some who have neither, have left their darling sweethearts, with a wishful glance and a half suppressed good-by. All have come for one grand and noble purpose, the advancement of medical science, which is calculated to bless alike the rich and the poor, the exalted and the lowly, of all nationalities. While here we shall discuss the improvements in surgery, in practice of medicine, in obstetrics, in gynecology, in almost every subject connected with our noble profession.

For months past the wings of the angel of death have been quivering as with delight over our beloved southern country. The people of the North, who so deeply sympathize with the South, have their eyes and minds fixed upon the death dealing monster, yellow fever. Who are to-day in the city of Memphis and other places, fighting back as best they can the grim monster, death, and crying to the people to flee for their lives while *they* remain to fight almost single handed with the great enemy of human life. While all others who can, fly from the deadly pestilence, the physicians and a few, yea, very few, others remain. Some of the bravest men the world has ever seen have fought yellow jack until, worn out with fatigue and sorrow, forsaken of the vast multitude, who profess to be very brave on other occasions, but flee for life to other States when the pale horse and his rider come marching into camp. In obedience to the command of the angel of death, the shafts are flying thick and fast; a death blow is struck in this mansion, another in that hovel of the poor, another in the public office, another on the street, another on the steamer at the wharf, another in the field,

and still others flying in all directions, liable to strike at almost every point. In all this confusion and danger the doctor, when worn out and overcome with sorrow and fatigue, with a conscience void of offense toward God and man, simply folds his mantle around his weary frame and gives up the ghost. Yea, he dies with his harness on, and passes away "unwept and unsung."

The great generals of the earth frequently die in great splendor. Marble shafts shoot up toward heaven and mark their last resting place, while the poor doctor, the bravest of the brave has scarcely a little marble slab on which his name appears.

Gentlemen of the Tri-State Society there is a grand and noble work for us to do. That work in part consists in preparing ourselves and others for the great battle against the enemies of human life. Death is stalking abroad in our land. We meet him at almost every step. In order that we may turn aside his shafts with any degree of success, we must be thoroughly prepared for every emergency. For this purpose we have come together, that we may have interchange of thought, profitable alike to the people and ourselves. Oh! how it inspires my heart to see so many of the citizens here to-night, who show by their presence the great interest they take in one of the most prosperous medical societies in America. Let us take courage, remembering that others under far more discouraging circumstances have accomplished wonders for the benefit of suffering humanity. Untold ages must and will reveal the millions of human lives saved and prolonged by Benjamin Jesty and Edward Jenner. When small-pox was carrying away many thousands of human beings every year, bringing desolation and sorrow to every land and country; when there seemed to be no eye to pity and no arm to save; when desolation and anguish were spreading over land and water; when despair and gloom were pictured on almost every countenance; when black death was sweeping like a storm cloud over mother earth, God, in His mercy, raised up the immortal Jenner and Jesty. The latter has never been sufficiently honored, as late investigations show. On one memorable day in 1774 Benjamin Jesty vaccinated his wife and two children, but owing to the stupidity of the times and notwithstanding his wonderful success, his venture came near ruining his reputation as a man and as a citizen. The people called him a brute and a low, vulgar fellow. More than the fifth of a cen-

tury passed before the world could see any good in his great discovery. It remained for the great Jenner to put forth his great genius and irresistible power in overcoming the prejudice against the operation, but he finally succeeded. On that memorable 14th day of May, 1796, twenty-two years after Jesty's operation, that grand and noble spirit, Jenner, put forth his mighty hand, guided no doubt by an All-wise Providence, and repeated Jesty's operation. Like Jesty he suffered persecution on all sides, from the religious, political and medical press, but trusting in God alone to guide him, he succeeded in convincing the world that he was not a fanatic, but a great benefactor of his race. May we not fondly hope that some preventive of yellow fever may be discovered. From the East, West, North and South, physicians are assembling, here, there, almost everywhere to consult, so that this great enemy of human life may be arrested in his career of destruction. Health boards are at work in systematic order in many of the States, devising means for the prevention of disease and death. The great problem of to-day is, how shall we prevent sickness rather than how shall we cure disease.

To the medical profession the people are looking for relief. May God speed the time when it may be heralded all over the world that in this grand and glorious country of ours, preventive medicine has accomplished the overthrow of epidemics of every kind. With our present facilities, the glorious news could be flashed with lightning speed from continent to continent, until all mankind would rise up and bless God and the men who have throttled the grim monster in his strongholds.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

THE GALVANO-CAUTERY AS A THERAPEUTICAL MEASURE IN
CHRONIC NASAL AND NASO-PHARYNGEAL CATARRH. By E. L.
SHURLEY, M. D., of Detroit, Mich.

It is not my intention to present a long compilation of the literature of chronic nasal and naso-pharyngeal catarrh, with annotations; but to invite your attention at once to the points

connected with the use of galvano-cautery as a therapeutic measure in these conditions. The pathological state of the nasal or naso-pharyngeal lining, to which this agent seems applicable, may be briefly summed up and expressed as either hyperplasia, glandular hypertrophy or atrophy, ulceration or neoplasm, attended by excessive, deficient or altered secretion and innervation.

These structural changes, affecting narrow and delicate passages, which are so intimately connected with the important functions of respiration, vocalization, articulation and the senses of hearing, taste and smell, beget, in many individuals, as we are all aware, a train of functional derangements which demand strenuous effort at cure—not alone amelioration—while in a few a considerable amount of such structural change is borne with but little or no local or general disturbance. Now, passing in review the local medicaments hitherto in use for the relief and cure of these morbid conditions, we find that the various astringent, detergent, emollient and so-called alterative snuffs, douches, pigments, sprays and vapor inhalations have been attended with but a small degree of permanent relief as compared with the result of similar treatment applied to other overt mucous surfaces.

This apparent failure perhaps is due to the incompetence of such measures to produce radical vital change. Therefore I have been led to believe, with others, that more or less destruction of a portion of the altered mucous membrane must be accomplished in order to effect a cure. This becomes necessary, not only for the important object of relieving mechanical obstruction of the nasal passages; but also—through destruction of glandules, varicose blood vessels, etc.—for the purpose of exciting physiological cell growth in the surrounding tissues.

This proposition being granted, the question arises, with what agent or agents can we best accomplish our purpose? The mineral caustics, such as nitrate of silver, etc., have been adopted with considerable success; also the practice of evulsion or cutting off exuberent portions of nasal mucous membrane by means of forceps and scissors. But each of these methods being not only very painful, but only applicable to the more accessible portions near the anterior nares, are consequently open to objection. We have, however, in the galvano-cautery (first applied, I think in this practice by Voltolini), an agent which, to my mind, answers every requirement.

The great danger of using so potent a destructive agent in such regions as the nose, naso-pharynx and pharynx has been urged (very properly perhaps) as an objection to its adoption, and ought to be appreciated by every operator. But if the proper instruments are at hand, the hand steady and the battery under control, it is as devoid of danger and as easy of application as any other agent which might be selected for cautery purposes.

I once had the misfortune to burn not only the exuberant portion of mucous membranc covering the turbinated bone, which I was after, but the opposite part of the septum, which nearly resulted in permanent agglutination and consequent obstruction of the nasal passage. But such an accident need never happen if the parts are properly protected.

For applications to the anterior and middle portions of the inferior and middle turbinated bones, a nasal speculum, affording proper protection to the meatus, is indispensable; those preferred, so far as I know, are the ivory cylinder devised by Dr. Lennox Browne and constructed with a longitudinal slit or fenestra through which the diseased membrane is touched; or, what is still better, the speculum devised by our distinguished President, and bearing his name (the Elsberg speculum) the blades of which, as suggested by Dr. Browne, are made of ivory. Both of these instruments, although very excellent, are open to some objection, according to my experience. The former (Browne's), although giving most perfect protection, is too large for introduction and maintenance in many nostrils, while it allows of only a limited exposure of surface, and that for only a short distance in. And the latter

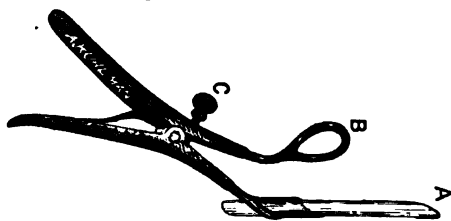


Fig. 1.

Self-retaining nasal speculum, with sliding ivory blade, which serves to protect opposite side of nasal passage from the glowing electrode.

(Elsberg's) is too heavy to be self-holding, with blades too narrow to afford good protection, and too long to be introduced and opened far in the meatus without producing considerable pain. For these reasons I have devised a speculum (Fig. 1) for this

purpose which should be in a measure free from these objections, and still be easy of introduction for applications well into the nares. It is composed of two parallel limbs, connected by a joint near their center, similar to the Elsberg speculum. At the nasal extremity one limb is finished into a fenestrated blade for holding out the ala, and the other into a slot-like blade, into which slides a thin concavo-convex plate of ivory, about two inches long by about one-half inch wide. The handles (which are short) are held separated and the blades in apposition by a small intervening spring, while the blades are separated by means of a small thumb screw. I generally use a pair, one for each nostril; but this is not absolutely necessary, as the instrument may be inverted for introduction to the opposite side of the nose.

It should be introduced with the blades in apposition and the ivory shield pulled out. Then, after pushing the shield gently in along the septum to the required depth, the blades may be separated and the cartilaginous nose dilated to the required width by means of the small thumb screw. Now the cautery electrode may be introduced along the ivory plate as a guide, the current turned on, and the diseased membrane destroyed to the required depth and extent; or, after the plan of Michel, several fine lines may be drawn across a selected spot at one introduction. In burning polypi or other large excrescences, the ivory plate will be found highly useful, as the electrode may be introduced with great freedom between it and the growth. It will also be found very effective in this method of treating ulcerations and papular protuberances of the membrane covering either the middle or inferior turbinated bones. This agent, the cautery, will be found none the less useful in the treatment of structural change, neoplasms and ulceration at the posterior nares and vault of the pharynx.

For applications to these regions I use either a long electrode or knife insulated except at the extremity, which is passed through from the anterior nares and applied to the part, under the guidance of the rhinoscopic mirror, or curved electrodes with platinum points, constructed so as to pass through the mouth and up behind the soft palate to the place to be touched. I am in the habit of securing the soft palate for these operations according to the method of Surgeon Wales, U. S. N., by passing a rubber cord through the floor of the nose and out through the mouth.

This can be readily done without the aid of a Belloque's sound, and is much more agreeable to the patient than the palate hook.

It is obvious, of course, that these manipulations are bereft of much danger by possessing perfect control of the electric stream, which may be obtained most perfectly, I think, by using a handle with a current breaker, easily managed by the operating hand, such as has been made for me by the Detroit Electrical Works.

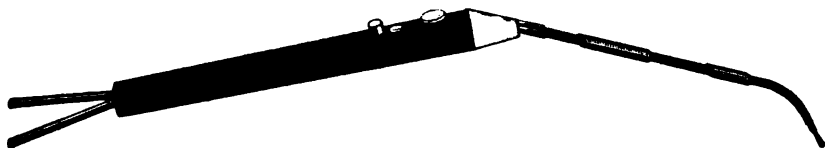


Fig. 2.

Fig. 2 illustrates the handle with the pharyngeal electrode attached; on the upper surface are the two posts for the adjustment of wire reel represented at the right hand of Fig. 3.

Regarding the galvano-cautery snare or wire for the removal of polypi, I have had but little experience except to learn how difficult it is to apply it. In "chronic follicular pharyngitis" the most rapid success has followed, in my hands, the touching of exuberant patches and varicose with the glowing electrode.

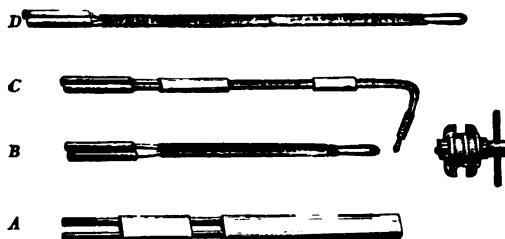


Fig. 3.

Fig. 3. *A* represents the two parallel tubes through which the wire for a snare runs; *B*, the short straight electrode or knife for use in the anterior part of the nares; *C*, the post nasal electrode to be introduced behind the soft palate, and *D* the long electrode or knife for introduction through the nares to posterior ends of turbinated bones and pharynx.

In closing, allow me to express the hope that the galvano-cautery may be more extensively employed for the relief of these common and troublesome morbid conditions of the nose and pharynx.

viations and definitions of the properties of remedial agents medical weights and measures, and the metric system; diagnostic record for every day in the year; index to diseases and remedial agents; chapter on incompatibles; examples of extemporaneous prescriptions, together with the Latin terms and phrases translated into English; a register of daily practice, so arranged that a correct account may be kept of visits made, office practice, surgical and obstetrical cases, medicine furnished, etc; general memoranda and cash-book. Bound in English Morocco, red edges, pocket-book form, with tucks.

THE ORIGIN AND FORMATION OF THE DENTAL FOLLICLE; the First Memoir on the Developement of the Teeth, by DRS. CH. LEGROS and E. MAGITOT; a Translation from the French, with Introduction and Notes, by M. S. DEAN, Including all the Illustrations of the French Work, with a Number of Additional Illustrations, Selected and Original. Pp. 216, 16mo. Chicago, 1880.

The above is the title of a work of great merit, which has been translated into English by Dr. M. S. Dean, of Chicago, and published by Jansen, McClurg & Co., of that city.

We think, however, that the authors have been unfortunate in their selection of a title, since but few would understand from it that the work was really a treatise upon the origin and formation of the teeth, a subject of great interest, both to medical and dental practitioners.

Although one would not be apt to be attracted by the title of the book, yet on careful perusal it soon becomes manifest to the reader, that it is by far the most complete work that has ever been produced upon the subject. We would not have it understood, however, that all of the mysteries connected with the development of the teeth have been satisfactorily cleared up, but it is evident that the authors have been diligent in availing themselves of the light thrown upon these processes by a host of investigations, which, added to their own careful experimentation, has sufficed to present the subject in a much more definite form than it has before assumed.

Since Goodsir published his views upon the development of the teeth many isolated facts have been established which are not in accord with his doctrine, and it finally became evident to all intelligent students of embryology that his teachings were, in many particulars, incorrect.

More recently, Marcusen, Thiersch, Kölliker, Huxley, Guillot, Waldeyer, Tomes, Robin, Kollman, Reichert, Dursy, Hannover, Hertz and others have been engaged in this field of research, and nearly all of them have contributed something towards completing the description of tooth-development. This work, therefore, has been prepared under far more favorable circumstances

than any of those which have preceded it upon this subject, and thank to the industry, learning and tact displayed by its authors we have a work of real merit founded upon careful observations, and written in a style well calculated to instruct the intelligent reader, in fact, a valuable acquisition to the histological literature of the present day. The work before us, however, is not simply a translation of the treatise furnished by Legros and Magitot, for it has been much enlarged by a lengthy introduction by the translator and by copious notes and explanations, which have almost rendered it a new production. We doubt not that its usefulness will be greatly increased by these well timed and lucid explanatory remarks of the translator.

The work is not only of great scientific value to practitioners of medicine, but it is, also, of especial importance to the dentist who would keep up with the spirit of the age in which we live. It is well printed upon good paper, and is almost faultless as to its typography.

H. JUDD.

Books and Pamphlets Received.

Diseases of Women by Lawson Tait, F. R. C. S., Surgeon to the Birmingham Hospital for Women, and Consulting Surgeon (for Diseases of Women) to the West Bromwich Hospital, etc., etc. Second edition, thoroughly revised and enlarged; specially prepared for "Wood's Library." 8 vo., pp. 192. [New York: Wm. Wood & Co. 1879.

Physiology and Histology of the Cerebral Convolutions, also Poisons of the Intellect. By Chas. Richet, A. M., M. D., Ph. D. Translated by Ed. P. Fowler, M. D. 8 vo., pp. 170 (numerous illustrations). [New York: Wm. Wood & Co., 27 Great Jones st. 1879.

Oesophagismus, a Typical Case, with remarks on the subject, by J. J. Henna, M. D., of New York. 1879.

The Physician's Daily Pocket Record, comprising a visiting list, many useful memoranda, tables, etc. By S. W. Butler, M. D.; fourteenth year. Edited by D. G. Brinton, M. D. [Philadelphia: Published at the office of the *Medical and Surgical Reporter*, 115 South Seventh street, 1880.]

A Case of Complete Inversion of the Uterus, with remarks upon the modern treatment of Chronic Inversion, by Clifton E. Wing, M. D., Boston.

Psycho-Physiological Training of an Idiotic Hand, by Edward Seguin, M. D. [New York: G. P. Putnam's Sons, 182 Fifth avenue, 1879.]

Transactions of the Twenty-ninth Anniversary Meeting of the Illinois State Medical Society, held at Lincoln, May 20 and 21, 1879; 8vo.; pp. 302. [Chicago: C. H. Blakely & Co.]

Ninety-seventh Annual Catalogue of the Medical School (Boston) of the Howard University, 1879-'80.

Annual Address before the American Academy of Medicine at New York, Sept. 16, 1879, by L. H. Steiner, A. M., M. D., of Frederick, Md., 1879.

HEALTH PRIMERS.

The Skin and Its Troubles. Pp. 94, 18 mo. [New York: D. Appleton & Co. 1879.

AMERICAN HEALTH PRIMERS.

The Throat and the Voice. By J. Solis Cohen, M. D., etc. Pp. 159, 18 mo. [Philadelphia: Lindsay & Blakiston. 1879.

Obituary.

Dr. Freeman J. Bumstead died during the past month. The profession has lost one of its most prominent and valued members. There is hardly a physician in the land who is not well acquainted with him by reputation, and who will not individually mourn his loss. He was a ripe scholar, engaged deeply in his professional labors, and had gained the affections of the whole profession. Those who knew him best, mourn him most.

Editorial.

WITH this number we commence the semi-monthly issue of the JOURNAL, and also commence its thirty-eighth volume. The prospects of the JOURNAL have never been brighter, at least since we have had control of it. Our efforts to make it the organ of the profession have, we flatter ourselves, been successful, if the complimentary and commendatory remarks voluntarily made by hundreds of our subscribers, are to be taken as an indication. We expect to continue in the future as in the past, to make the JOURNAL indispensable to the studious physicians, not only of the West and Southwest, but of the whole country. As we said in our first issue of 1878, the JOURNAL is ours only as to the risk and labor of conducting it, in all other respects we hope the profession will feel it is theirs. To them it is an avenue to the public and a means of individual profit. With these few remarks we greet our readers with a Happy New Year.

News Items.

The Southern Illinois Medical Association meets at Cairo on the third Wednesday of January. Dr. C. H. Hughes is to deliver a public address. The JOURNAL will have its reporter in attendance. It is expected that this will be a large meeting as quite a number of thorough students of medicine (as every practitioner ought to be) are to read papers on important and interesting subjects. We will be able to place a synopsis of the proceedings before our readers.

At the annual meeting of the New York Laryngological Society, held at the Academy of Medicine December 19th, the following officers were elected: President, R. P. Lincoln, M. D.;

Vice-President, Louis Elsberg, M. D.; Secretary and Treasurer, Wm. F. Duncan, M. D.

Dr. F. F. Dickman, of Fort Scott, Kas., is editor of the *Kansas Medical Index*, a monthly journal to be issued by the "Index Company." The *Index* is designed to advance the interest of the profession of Kansas, not meant to displace other and larger publications. Terms, \$2.00 per annum.

ANOTHER NEW JOURNAL.

Dr. E. C. Dudley, of Chicago, has sent us the first number of his *Chicago Medical Gazette*. It is a twenty-four page, double column monthly. Its appearance is quite creditable. Although he is in a live town we suspect that he will have some hard work in keeping it a-going, unless he has some outside influence. We welcome it to our exchange table, and wish its editor success in his laudable undertaking.

We see that the Yellow Fever Commission, appointed by the President under the direction of the National Health Board, has made a preliminary report. This report contains a large amount of information about the sanitary condition of the cities of Cuba.

CHANGES IN MEDICAL JOURNALS.

With the new year, as might be expected, there are various alterations in our medical exchanges. The *Boston Medical and Surgical Journal* has been changed to a two column twenty-four page weekly.

The *New York Medical Journal* has taken the rule from its title page and in that way made it appear of a more modern style. Dr. Frank P. Foster has taken the place of Dr. Jas. B. Hunter. In Dr. Hunter's farewell he states that this change is in consequence of increasing professional duties.

THE
SAINT LOUIS
MEDICAL AND SURGICAL
Journal.

VOL. XXXVIII—JANUARY 20, 1880—No. 2.

Original Contributions.

ARTICLE III.

NOTES ON MICROSCOPY. By Prof. J. J. M. ANGEAR, of Fort Madison, Iowa.

The *American Quarterly Microscopical Journal* was published for one year and suspended. Mr. Romyn Hitchcock, its editor, brings out this month the *American Monthly Microscopical Journal*, only one dollar a year, and promises to be more elementary in its character, thus meeting the wants of a large number of medical men who would be interested in microscopy, but entertain the idea that no one but a specialist can see anything with a microscope, forgetting that every microscopist was at one time a novice. Many a young man becomes discouraged because he fails to find under the microscope what he expected to, for want of sufficient elementary instruction.

The fifth edition of "How to Work with the Microscope," by Lionel S. Beale, is just out. It is much enlarged by the addition of new matter. It is a fair exponent of that part of microscopical science.

Under the caption "Of the Circulation of the Blood," he says: "I believe by the laws of England, the man who ties with a thread or otherwise in any way interferes with the comfort of a frog for the purpose of studying the circulation of its blood in the vessels of the web of the foot, does so at the peril of being

taken up by the police and convicted before the Magistrate of being cruel to an animal, and may be fined £50 (\$250) for the offence. * * * Maiming and torturing incidental to *sport* are permitted. * * * I believe experiments may be performed upon a tadpole without breaking the law, but experiments must not be continued from the tadpole into the frog stage of life. Before long, no doubt, the wrong will be redressed and the protection afforded to the frog will be generously extended to the tadpole."

The Gundlach Globe Lens was first introduced to the scientific public at a meeting of the Rochester Microscopical Society on the 13th of October, 1879. This lens, or rather this combination, is the result of the discovery of a new principle in optics. The lens is a perfect sphere, consisting of a hollow flint-glass globe of a certain dispersive power, made in halves, and enclosing a solid crown-glass globe of a certain density. Mr. Gundlach discovered that the highest corrections could be obtained by this combination, giving to a globe of 2 3 inch focus a working distance of nearly a quarter of an inch. Under the old rule the corrections depended mainly upon curvature, but by the new principle the corrections are made by an adaptation of the relative thicknesses only. The relative thickness for the highest corrections can be determined mathematically. Under the old rule there is an optical axis extending only in a certain direction, but in the Gundlach Globe Lens the axis lies in any direction. Hence, with the Globe Lens in any position, the field is perfectly flat and distinct to the outer edges, and, what is true of no other lens, the field is always the largest possible.

He has invented a binocular microscope, which is entirely new and original in its application of optical principles as well as in its mechanical construction, and entirely overcomes the difficulties and defects of the Wenham plan, and it therefore promises to be the microscope of the future.

Prof. Wm. Leighton, of Ottumwa, Iowa, has also invented a new binocular microscope using high powers. It is unnatural and injurious to be constantly using but one eye. There are but few that are willing to keep both eyes open while using a monocular instrument, therefore we hail binocular microscopes as a sanitary measure.

Some time since, Drs. Belfield and Atwood fed some rats *strychnia*. Some time afterward they took those rats to the Cal-

umet Club, Chicago; then cutting out some flesh of those living rats, placed thin sections under the microscope, thus exhibited living, moving trichinæ.

The following has been going the rounds of the secular papers as if the circulation of the blood in the human body had never been seen before:

SEEING THE CIRCULATION OF THE BLOOD.—Dr. C. Huter, a German savant of Griefswald, has devised a simple arrangement which demonstrates the circulation of the blood in the human body by making it visible. The patient's head being fixed in a frame, on which is a contrivance for supporting a microscope and a lamp, his lower lip is drawn out and fixed on the stage of the microscope by means of clips, the inner surface being uppermost, and having a strong light thrown upon it by a condenser. When the preparations are completed all the observer has to do is to bring the microscope to bear on the surface of the lip, using a low power objective, and focusing a small superficial vessel. At once he sees the endless procession of the blood corpuscles through the minute capillaries.

The circulation of the blood has been seen in frænum of the human tongue, and Dr. Pritchard invented a microscope especially for this purpose some years ago.

Reports on the Recent Progress of Medicine.

DISEASES OF THE RECTUM.

By Y. H. BOND, M. D., Collaborator for the JOURNAL.

ABSCESS IN THE REGION OF THE RECTUM.—The *Medical and Surgical Reporter* of November 29, 1879, contains a report of a discussion of abscess in the region of the rectum, occurring in the Northern Medical Society of Philadelphia. Dr. James Collins, in introducing the subject, reported three cases, the prominent feature in each being the extensive amount of infiltration surrounding the fistulous tracts, and so indurating the parts as to convey the sensation of scirrhus. In each of the cases he removed the mass entire, exposing the muscular fibers of the glutei and sphincter muscles, with the periosteum of the coccyx. Microscopic examination demonstrated the non-malignant character of the parts removed. The treatment did not involve the division of the sphincter in either instance, and was, in fact, the old and abandoned practice of cutting out the fistula—a procedure which made fistula so terrible a disease in the minds of all persons possessed of human sensations, in the days of our ancestors. Doubtless the blind external fistula can be cured in this barbarous style, but it is not probable that many medical men of the present day will be willing to join Dr. Collins in reviving the torturous mode of practice that prevailed during the sixteenth century. If the Doctor had only reported one case in which he pursued this method of practice, it might have been inferred that the character of the operation was prompted by the supposition that scirrhus existed, but such an inference would scarcely apply when three cases are similarly treated.

Dr. N. Hatfield thought that a syphilitic constitution would account for the infiltration observed by Dr. Collins. In connection with the subject of the treatment of fistula, he expressed his disregard of the association of phthisis, and operated just as willingly upon consumptive patients as upon those enjoying immunity from that disease, when he saw the cases early. [I am quite sure that in view of our ignorance of the essential nature of phthisis, and in view of the general conviction derived from observation, that the healing of a fistulous tract hastens the inroads

of consumption, but a small portion of the profession will be found willing to share the conclusions of the Doctor on this subject.] His method of operating depends upon the internal opening; when that is low down, he divides the sphincter; when high up, he enlarges the external opening and packs the wound. This is an important subject, and it is a pity that Dr. Hatfield does not state what he regards as high up, for it is now quite generally acknowledged, as the result of the labors of M. Ribes, that the internal opening is hardly ever at a greater distance than an inch and a quarter from the anus, and that usually the internal opening will be found just above the point of junction of the mucous membrane of the bowel and the integument of the anus.

The Doctor gives no reason for his unwillingness to divide the sphincter when the opening is high up; perhaps he is apprehensive of hemorrhage; but with a divided sphincter and the patient anæsthetized, no difficulty in the effectual use of mechanical means to control hemorrhage, will be experienced by a surgeon of resolution and experience in the management of rectal troubles. And again, serious hemorrhage is hardly ever encountered unless the bowel is divided as high up as an inch and a half from the anus. It may be that his objection to dividing the sphincter when the opening is high up, is based upon the apprehension that incontinence of *fæces* may result. Mr. Henry Smith, of London, has expressed it as his conviction that the division of the internal sphincter and circular muscular fibers of the rectum—attaching especial importance to the abolition of function of the latter—furnishes an explanation of those cases where the power of *fæcal* retention is lost, after operation for fistula, advancing as an argument for this assumption that the circular muscular fibers act as sphincters as well as propellers of the contents of the the bowel. This is certainly not *argumentum ad judicium*, for if force is given to the argument of Mr. Smith, that continued incontinence of the bowel results from division of the circular muscular fibers of the rectum purely because of the loss of their sphincter-like action *per se*, then the inference is legitimate that division of the sphincter proper forever puts an end to their peculiar function—a palpable absurdity.

It seems to me that a more plausible explanation of the observation that division of the sphincters and the circular muscular fibers is so frequently followed by inability to control the contents of the bowel is to be found in this, that the circular mus-

cular fibers being divided, the divided surfaces of the sphincters are not brought in that close apposition that they are when the circular muscular fibers are intact, and as a consequence the gap between the divided surfaces of the sphincters, that has to be filled up by adventitious or connective material, is large; and of course the retentive action of the sphincters will be impaired in proportion to the extent of super-added or intervening tissue. As time goes on, condensation and retraction of this new tissue results, and improvement of the function of the sphincters follows *pari passu*. I do not wish it inferred that I acknowledge that a case of complete division of the sphincter and circular muscular fibers of the rectum is followed by protracted incontinence of the bowel; for I am disposed to believe that such happens only in those cases characterized by great and extreme atony of the sphincters prior to their division.

GLYCERINE IN THE TREATMENT OF HEMORRHOIDS.—Under this caption David Young, M. D., of Florence, furnishes to the *Practitioner* of October, 1879, quite an extended article, attributing to glycerine, in doses of a dessertspoonful, twice daily, a special curative agency over internal hemorrhoids. In conjunction with the glycerine treatment, he uses, when constipation exists, a judicious and well selected aperient, consisting of sulphur and potash, or the following:

R. Hydrag bichlor.....gr. 1-30.
 Strychnia.....gr. 1-30.
 Extr. belladonna.....gr. $\frac{1}{2}$.
 Quinine, disulph.....gr. 1.
 Extr. aloes barb.....gr. $\frac{1}{2}$.

M. Ten pill. S. One to be taken at bedtime.

The Doctor reports a number of successful cases in support of his glycerine treatment; though I confess, that I am disposed to attribute more virtue to what he esteems as adjuvants than to his principal, glycerine. I believe that the relief obtained by his patients is to be ascribed to the tonic action of the glycerine on the general system, rather than to any special curative action over the hemorrhoids, together with the judicious use of aperients. And this conviction is strengthened by the sound ideas with which the Doctor supplements this general treatment, as to cleanliness, the use of cold water locally, etc., for in this connection he says

that much may be done preventively in these cases, and nothing is more useful in this direction than the free use of cold water *immediately* after each action of the bowels. When the hemorrhoids are inflamed, warm water is generally more agreeable and soothing, but when they are in a chronic state, giving little or no trouble, the free use of cold water in the manner presently to be described will not only be a source of much comfort, but generally lessen the frequency of the attacks. Not only is there a great deal of neglect in this matter of personal cleanliness in the present day—at least so far as the bowel is concerned—but many to whom this charge would not apply equally, fail from want of proper knowledge as to the manner in which the lower bowel ought to be bathed. When the question is put, “Do you carefully attend to bathing the rectum every day?” the answer invariably given is “Yes;” but when you inquire more particularly, you find that it is done during the ordinary bath, before the bowels have been relieved, or at some other time having no relation to the hour of defecation. This is where the mistake lies. The moment when the application of a cold sponge to the bowel is of so much value in preventing the formation of piles, and in giving relief when they are present, is just the moment after the motion has passed. At the instant of the passing a partial eversion of the lower bowel takes place, and any hemorrhoids which may be lying on its surface come down with it. If paper is used, as is so universally done in order to cleanse this portion of the rectum, the sensitive mucous lining shrinks from the rough touch of that paper, and the everted portion returns to its place only partially cleansed, and having adhering to its surface particles of fecal matter which keep up a constant irritation, giving rise to great discomfort, even where no hemorrhoids exist. [My observation on this subject of bathing the bowel immediately after defecation causes me to entertain ideas in entire harmony with those of Dr. Young; hence I am persuaded that its agency, if good, is by no means limited to its cleansing properties, but that through its stimulant and tonic influence on the vaso-motor nervous system of the hemorrhoidal plexus, a positively curative agency is exerted.]

VENEREAL DISEASES.

By LEGRAND ATWOOD, M. D., Collaborator for the JOURNAL.

THE SUDDEN DEAFNESS OF SYPHILIS.—In an article on the above subject in the *American Journal of Medical Sciences* for July, 1879, by Dr. Sexton, that gentleman adduces the following conclusions: "1. Syphilitic affections of the ear inducing sudden deafness are of exceptional occurrence. 2. They would seem to be induced by a preëxisting hyperæmia in the ears, excited by sympathetic relationship or by an inter-current attack of aural mucous catarrh. 3. The attacks are characterized by their sudden occurrence, and both ears are usually affected simultaneously, although the contrary sometimes takes place. 4. The deafness is always very great. 5. This syphilitic affection speedily causes a disarrangement of the integrity of the chain of ossicles—most likely at the maleo-incudal joint, probably in some instances at the stapedo-incudal joint, or both of these. The movements of the stapes in the oval window are also likely to be interfered with. The two first mentioned conditions serve to explain the noises in the ears and the autophony. The last mentioned condition would increase the anomalies of hearing. 6. The affection does not depend, so far as we know, on anomalies of any portion of the labyrinth, although the latter, of course, is liable to invasions from syphilis, with the nature of which we are as yet unfamiliar. 7. The disease is usually unattended by pain in the ears; it is non-purulent, and its curability is a characteristic."—[*The Dublin Jour. of Med. Sci.*, Oct., 1879.]

EARLY SYPHILITIC AFFECTIONS OF THE NERVOUS CENTERS.—[From the *Dublin Journal of Medical Science*, Oct., 1879.] Prof. Maurice closes a long and able paper on this subject with the following deductions from the facts and researches at his command: 1. Syphilis may attack the nervous centers at a very early period after the initial lesion. 2. The early cerebro-spinal lesions are those which develop during the virulent period of the malady—that is to say, during the first two or three years. 3. There are degrees in this precocity of the cerebro-spinal syphiloses; the first includes those which set in within the first twelve months; the second, those which develop in the second or third

year of the constitutional malady. Statistics seem to show that those of the first degree are more common than those of the second. 4. Among the early visceral localizations of syphilis, those in the cerebro-spinal system are incomparably the most numerous. 5. They are also the most dangerous. Their gravity does not increase with their diathetic age. Those which develop during the first month of syphilis are as formidable as those which belong to the more advanced stages of the malady. 6. All the forms, all the degrees, all the phenomenal combinations that constitute the symptomatology and the processes of the localization of syphilis in the neural system, are met with in the early as well as in the late cerebro-spinal syphiloses. 7. Certain symptomatic complexes, however, seem to predominate. The most frequent are those which consist in an attack of hemiplegia, involving the whole of one side of the body. 8. Among the attacks of hemiplegia, the syndroma, comprising right hemiplegia and aphasia, is the most common. 9. The paralytic forms are much more common than the convulsive or epileptic in the early cerebral syphiloses. 10. In the cerebro-spinal syphiloses the psychical troubles and the incoördination of the movements are never systematized as they are in mania, general paralysis and locomotor ataxia. 11. The absence of systematization in the cerebro-spinal syphiloses must be regarded as one of their chief characteristics. The only exception is in the case of the syndroma of right hemiplegia and aphasia. 12. Early localizations of syphilis in the spinal cord are much less common than in the encephalon. 13. The lesions which seem to belong to the early cerebro-spinal syphiloses are diffuse, or more frequently circumscribed hyperplastic effusions into the cortical layer of the brain and pia mater, and changes in the sylvian arteries with consecutive ischæmic softening. 14. In some cases of cerebro-spinal syphiloses that terminated fatally no lesion was found, but at that time the existence of arterial syphilis had not been recognized. It may be presumed that death had resulted from sudden anæmia of the nervous centers that are essential to life. 15. With regard to the etiology of the early cerebro-syphiloses only very vague conjectures can be advanced. In most of the cases the initial lesion, as well as the consecutive and mucous manifestation, were very mild in character. 16. The general cause of the constitutional malady is not modified by the appearance of early localization in the nervous centers. The other

manifestations develop before, during and after the localization in the neural system, without presenting any deviation from their usual forms, organs, course or topography. 17. The precocity of the cerebro-spinal syphiloses furnishes no special indication with regard to treatment. Whatever may be the age of the constitutional malady, the localizations in the nervous centers demand the same specific medication. The peculiar conditions of each case furnish the secondary indications relative to the choice, doses and combinations of the two specific agents.—[*Annales de Dermatol et de Syphilig*, Vol. I, No. 3, and *N. Y. Med. Record*.

GONORRHOEA IN THE MALE.—In the treatment of this affection Dr. J. H. Brinton employs carbolic acid in the shape of a solution containing gtt. ii of the acid to ℥i of lime water as a local application in the acute stage of the disease. At the same time cubebs is administered internally in doses of a tablespoonful in half a tumblerful of water three or four times a day. The dose is pushed until diarrhoea or nausea supervenes, when the quantity is reduced.—[*Dublin Jour. of Med. Sci.*, Oct., 1879, from the *N. Y. Med. Rec.*

Translations.

FROM THE FRENCH.

EXCERPTS FROM LATE FRENCH JOURNALS. [Translated for the JOURNAL.] By Dr. A. H. OHMANN-DUMESNIL, of St. Louis.

DISLOCATION OF STERNUM.—Richet notes a case of a man, æt. 62, in whom the second piece of the sternum was dislocated forwards and upwards, so as to rest on the manubrium. It was caused by a fall from a considerable height, forcibly flexing the trunk. This accident is rare, especially in so old a subject, as ossification has generally taken place and fractures are more common. Reduction could be easily accomplished, but not maintained.—*Gazette des Hôpitaux*, Nov. 25, 1879.

SECONDARY PNEUMO-THORAX FOLLOWING THE USE OF THE ASPIRATOR.—At the Academy of Medicine, M. Bucquoy read an account of two cases in which this occurred and was neither due to air admitted from without, nor to perforation of the lung. His opinion is, that when fluid is evacuated by the aspirator, the compressed lung does not always expand and fill up the vacuum. Then the gases held in solution in the effusion perform this office and we have pneumo-thorax. M. Lorreboullet and M. Pennesson confirm this opinion and all agree in saying that the possibility of meeting with such a case is not sufficient reason to preclude the use of the aspirator.—*Ibid*, Nov. 27, 1879.

TREATMENT OF LUPUS BY LINEAR SCARIFICATIONS.—M. Vidal has reached the following conclusions on the subject: 1st. The external treatment of lupus by scarifications is the least painful, the surest, the one less liable to returns, and finally, the best method to insure good results as far as cicatrization is concerned. 2d. It is applicable to all varieties of lupus, of remarkable efficiency in ulcerated and non-ulcerated tubercular forms and in lupus vorax, though not quite so certain in the erythematous form or in that connected with acné.—*France Médicale*, Nov. 22, 1879.

VASELINE IN GYNÆCOLOGY.—Dr. de Dinetry advises the use of vaseline, not as anything new, but to call attention to the sub-

ject. He thinks that it is by far the best thing to lubricate the finger, speculum, sound, etc. He has constantly used it as an application to the cervix, it being a good vehicle for carbolic acid, iodine, etc.—*Progrès Médical*, Nov. 29, 1879.

CONGENITAL ABSENCE OF VAGINA—OPERATION—RECOVERY.—

Dr. D. Molliere had a patient at the hospital, a young woman *æt.* 22, normally developed, with well formed breasts and a feminine voice. On entering the hospital Feb. 21, 1879, she related that she had been married two years. Had had no menstruation prior to marriage (nor subsequently). Since her 17th year she had felt violent abdominal pains, syncope and swellings in the iliac regions, with tumefactions and tenderness of the breasts. These phenomena occurred regularly every month and disappeared spontaneously. The pains continued after marriage. All attempts at coition were either impractical or imperfect, although her sexual desires were well developed.

On examining the genital region the labia majora and minora and the clitores were all normal. The meatus was normally situated, but immediately below it there was no vaginal orifice. There was a thick perineum 2 cm. wide, separating the meatus from the verge of the anus. Exploration per rectum showed the presence of an oblong tumor, situated about 8 cms. above the margin of the anus. This tumor was separated from the finger but by the rectal walls and presented a conical inferior extremity of the size and density of the cervix uteri; it was continuous with a diffuse tumefaction in the right iliac fossa. A sound in the bladder touched by the finger in the rectum, only indicated the presence of rectal and vesical walls. Six days before the expected menstrual molimen the operation was performed. The patient, fully etherized, was placed on her back with the thighs widely separated and flexed. A sound in the bladder and the left index in the rectum served as guides whilst a careful dissection was made, separating the wall of the rectum from that of the bladder, with a bistoury. The hemorrhage was enormous, but the dissection was carried on up to the uterus. The operator might have gone further and imitated nature more closely by producing cul-de-sacs, but the fear of lighting up a dangerous pelvic cellulitis, deterred him. This vagina measured 8 cms. in length and admitted two fingers. It was kept tented and a glass tube substituted for the tent. The fifth day after op-

erating an abundant menstruation took place without pain. From this time a rubber rectal sound, having about the size of a penis, was kept in the vagina. Several menstruations were observed and the tumor in the iliac region finally disappeared totally, it being, no doubt, an accumulation of menstrual fluid.

Unhappily, the author observes, this woman's husband died before the physiological value of the operation could be tested practically. The operation was somewhat different from that pursued by Emmet, in so far as the dissection was made with a bistoury, for it could not have been done by simply using the finger. Besides the imprisoned menstrual fluid was not liberated but allowed to disappear by absorption, this being by far less dangerous. The recovery in the case was rapid and unaccompanied by any fever.—*Lyon Médical*, Nov. 30, 1879.

FROM THE SPANISH.

DR. A. H. OHMANN-DUMESNIL, Translator.

CONGENITAL OPACITIES OF THE CORNEA.—Dr. Fernandez commences by giving a case cited by Tavignot. It was a child at 18 months, which had eyes of normal shape and size, and well marked internal strabismus. The left cornea was opaque throughout its extent with the exception of an outer zone, from two to three millimeters in width, which was transparent. In the right cornea the opacity was limited to the central part and did not occupy more than one-third. There were no signs of blood vessels either on the surface or in the thickness of the cornea; the opacity uniformly diminished from the center to the circumference. The eyelids were normal, and the conjunctiva injected, but no indications of purulent ophthalmia existed. The iris was almost entirely wanting in both eyes, it being represented by a narrow, gray band at the circumference of the cornea. Light produced no contraction; vision existed in both eyes, but if the light was brilliant there was fatigue, photophobia and sneezing. The parents and nurse were certain that the opacities were present at birth and that there never were symptoms of ophthalmia.

The author's observation is as follows: A child, native of Cuba, æt. 8 months, was brought to his notice May 4, 1879. It had a good constitution, healthy look and sound parents; it had no peculiarities save a "cloud in the right eye," as the mother expressed it. On examining the eye, a leucoma of a blueish white color, similar to those observed in infants who have suffered from a purulent ophthalmia, could be observed. It occupied more than the inferior two-thirds of the cornea; the pupil could be seen pretty distinctly. The father stated that the "cloud" had been decreasing. The diameter of the right cornea appeared smaller than that of the left. On palpation no difference could be felt between them. There was a strabismus, converging to the right, but less accentuated during the last few months.

D'Ammon inclines to the opinion that these opacities are due to a change in development in the fœtus. Similar views are held by Tavignot and Ph. Steffan.

The author believes that they are the result of purulent conjunctivitis, intra-uterine. He furthermore thinks that an impartial investigation of a number of cases will confirm his views.—*Cronica Medico-Quirurgica de la Habana*, Nov., 1879.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

JANUARY 10, 1880.

DR. WILLIAMS — Without wishing to recall the subject that we had under discussion the other evening, I wish to express my dissent from the position taken by Dr. Rumbold at the last meeting. The hour for adjournment arrived so that I could not answer him then. I do not believe his position in his last statement is correct. I do not wish it to go to the profession as having my apparent approval. His statement was that "It is impossible to inflate the drum cavity, except with barely sufficient atmosphere to fill it; often it is filled with atmosphere, then the sound we hear by inflating it is only the sound made by the air striking the end of the Eustachian tube, and secondly, it is impossible to get anything out of the drum cavity." These are the two positions that he took in his last, which I did not have the opportunity to answer.

DR. RUMBOLD — Provided there is no perforation of the membrana tympani.

DR. WILLIAMS — Of course, I have been in the habit of blowing a constant stream of air into the drum cavity for many years, and I was surprised at the position taken by Dr. Rumbold. I am satisfied, sir, I can blow a continuous stream of air into the drum cavity, and in that way I wash out the drum cavity with atmosphere, just as I wash out the external ear with water. I do not make this statement for the sake of controversy, but to express dissent to said statement. I do not believe it is correct. I hold that fluids can be driven out of the drum cavity by the action of air driven into it by inflation. I think I have frequently caused partial evacuation of the drum cavity in this way.

Rokitansky's Treatment of Consumption.

DR. W. H. FORD — As nothing more is to be said on that point, I think it will be well to hear the opinions of gentlemen assembled, relative to the prospects of Rokitansky's new treat-

ment of consumption. There is something very profound in the idea; it is peculiarly interesting. It shows there is considerable generalization in these matters, showing we have at least reached a point where we generalize. What I allude to is the bronchi being washed with antiseptics. Now in all abscesses of the body, whether of the throat, or larynx or other organs, we inject fluids to affect the noxious matter, and finally use antiseptic fluids, powders, or matters of that kind. This treatment was prematurely put before the world by one of Rokitsansky's pupils, but it is now authoritatively published in a card by the author of the treatment. Here we find after phthisis, the tubercule has been softened, it is treated like any other disease; like any other putrefaction in loco, where other parts of the body are likely to be affected. Antiseptics have been used for a long time, but here we have a system that aims exclusively to produce evacuation by coughing, expectoration, repeated expectoration, until there is no more matter to evacuate. That is interesting and profound in every phase of its subject. We have long believed in improved nutrition, tonics, exercise in the open air, and on those points Rokitsansky insists, but it is the first time in the treatment of this disease that anything like such thorough evacuation or washing has been proposed. On the contrary, remedies have been suggested for preventing coughing, instead of one that causes the filling of the tubes with fluids. This method is analogous to others now in use, as when a slightly irritant fluid is used to produce exudation; it is done sometimes by inhalation. It is intended in this way to cause removal from the air passages of substances that were poisoning the entire economy.

DR. W. PORTER — This is an interesting subject. It has been persistently brought before us in medical literature, and no subject that I have ever looked into, has more firmly impressed me with the injunction of St. Paul, "Be not carried about with every wind of doctrine." The younger Rokitsansky has been experimenting for sometime, and a revival of his notions has been recently instituted in Vienna. Now some of the medical journals of Germany are calling the whole thing in question. I have been using this method before it was published in the medical journals. Not that I suggested it myself, but I received advices from old clinical friends in Vienna. Rokitsansky does not claim it is a

cure for phthisis. Phthisis, as pathologically understood, is not a disease beginning and ending in the lungs, but it is a disease beginning in the system. It is a diathesis localized in the lungs. This is aside from the question, though bearing on it. It has been the custom for quacks to resort to inhalation, and by preventing the absorption of poisonous matter, relieve the patient for a time and pronounce a cure. I think some good may be done by this method. I have had several interesting cases where I have used benzoate of soda as an antiseptic. There is another interesting feature in this matter of inhalation, and that is the mechanical effect. The effort to inflate the chest and contracting it again, becomes an important factor. They have not only the therapeutic effect of the drug, but a mechanical beneficial action. I have now fourteen carefully selected cases, in which I use benzoate of soda, which I will report after awhile. In three of these cases, averaging six weeks each, I have had favorable results. In others I have had none, though they are all more recent. If I can judge from a short experience it is an addition to, but cannot wholly constitute the treatment.

DR. FORD—I only wish to call attention to the method Rokitsansky adopts, and would say that with the exception of the use of Cod Liver Oil, almost everything has been empirical in the treatment of this disease. Benzoate of soda is not a specific in phthisis. I do not believe in specifics, whether we instance mercury in syphilis or quinine in intermittent fever. He insists on deep inspirations, so that the patient shall cough, shall spit until he spits it up. The lungs thus may be washed out, and an antiseptic agent put into it. Benzoate of soda is a remarkable antiseptic. There is no more powerful antiseptic in the whole range of medicine, and it is one of the least irritant.

DR. RUMBOLD—I see that Dr. Ford is struck with this method; not so much with the remedy, as with the method or idea of evacuating the lungs of morbid secretion, which to a certain extent causes irritation. There is no doubt in my mind but that if the diseased lung could be freed of this secretion, it would result in great benefit to the patient, but to attain this result it must be done by a means that will not cause irritation. I doubt if the method mentioned will prove beneficial, because of the irritation following its use. When this method was first an-

nounced, I tried it for a short time on a few patients. I did not have much faith in it; may be that was the reason it did not benefit my patients. I am opposed to it, because of the excessive and continued coughing that is required to free the lungs. This excessive exertion of a diseased organ must produce as much harm by the irritation as the benefit to be derived from the removal of the muco-purulent secretion. The patients that will be benefited by the method are the kind that will readily, without bad effect, absorb the pus that is not expectorated on usual exertion, if they are fed on Cod Liver Oil, given freely of quinine. Those patients that are not benefited by these two agents, aided by proper hygienic measures, will not be helped by this exhausting, irritating method. While I am certain that this method will not be successful, yet I am free to say that the idea of cleansing an inflamed lung, that is almost full of irritating muco-purulent secretion, is a good one, and if we could employ some means of a mild nature to perform this, as we do the nasal and aural cavities, great benefit would be derived from it. Even that alone would cure many cases.

DR. G. HURT — As an antiseptic I have no doubt that benzoate of soda would be as useful, especially by inhalation, by vaporization into the lungs as almost any other remedy of that class. But to assume that phthisis pulmonalis is curable by the mechanical action produced by the irritation of a local remedy of that kind is, I think, a hazardous assumption to say the least of it. I doubt its success when properly tested. There is scarcely a case, perhaps, of phthisis pulmonalis that has advanced so far as to terminate in suppuration, that is not attended with more or less inflammatory action. We generally find that where we have inflammation experience has taught us that rest is the better treatment. It is barely possible we may find cases in which some slight degree of mechanical irritation may do some good, but as a rule I think it would be contraindicated, and would only be applicable to exceptional cases.

DR. FORD — Recollect that wherever pus remains in the system, we are bound to have constitutional symptoms, wasting and pyæmia. Fever in the parametric abscess is a slowly formed pyæmia, due to the absorption of pus in that locality. Some symptoms of phthisis are due almost entirely to the absorption

of pus. It is impossible to assume that pus can remain in contact with lung substance and produce no harm. It is contrary to every principle of medicine. I maintain that the ideas Rokitsansky has put forth, relative to the evacuation of pus, harsh though they may seem, will be deemed less harsh in future, when men know how to use them. The suggestion strikes me as a valuable improvement. It ranges under the heads of evacuation, washing and the use of antiseptic fluid.

DR. JOHNSTON — If pulmonary consumption is the result of local irritation and the absorption of matter thereafter, then if we remove the cause the disease will cease. This brings us to the old doctrine which was current a hundred years ago. When I entered the profession I was informed that pulverized stone, the product of scissors grinding, etc., entered the lung and caused irritation, then we had pus. You can inject normal pus in the blood and no bad consequences follow. In a work by the two Williams it is laid down that consumption is caused by a vitiated condition of the circulatory system, resulting in an inflammation of the connective tissue of the lung, termed by him interstitial consumption. But we have another form of consumption that is hereditary consumption. Here is an impoverished condition of the blood. There is a softening in the center of the tubercle which you have often seen when you enter the lung. When that is the case benzoate of soda will fail. You must strike at it in another way. The digestive powers are first affected by the disease. The remedy is, to give roast beef and rich food, if nature will take it; plenty of oxygen. It would be much better than benzoate of soda, carbolic acid, and those remedies that have been mentioned here to-night. We must go beyond the surface, and use such remedies as will equalize the circulation, encourage the action of the skin and bowel, and remove the cause. Without removing the cause we will inevitably fail to cure the disease. Years ago it was announced that alcohol would cure consumption. These specifics have all failed, and I believe will continue to fail.

TRI-STATE MEDICAL SOCIETY.

A PLEA FOR CONSUMPTIVES. By S. E. MUMFORD, M. D., of Princeton, Ind.

A family that shows no trace of pulmonary consumption in its history, must be rare indeed. The physician in active work meets with cases, in some stage of progress, with almost every daily round. In New England it occasions about one sixth of the mortality. The death rate from this cause will steadily grow with us, no doubt, as our population increases.

A disease so destructive of human life should challenge the best efforts of the medical profession to stay its ravages. But there is an evident apathy with medical men regarding this affection—a degree of indifference that needs arrest. If we seek a solution, it lies no doubt, in the unpromising future of this class of cases in general. But is this hopeless view of the disease and consequent apathetic deportment of many in the profession toward it wholly warrantable?

Flint has recently announced as his conviction that the disease is self-limited, and tends to recovery. After many years of careful notice of phthisical cases one cannot fail to note, now and then, great results from treatment, and there is no doubt, with those experienced in its management, that much can be accomplished in individual cases, in alleviating, in staying progress, and not as infrequently as some suppose, in working permanent cures by a proper medical and hygienic conduct of phthisical people. The belief, unfortunately too general, that recovery from the disease can only be viewed as a spontaneity, is as pernicious in its influence as it is erroneous in its teaching. The same doctrine could, in the equal justice, be applied to a restoration to health from any departure therefrom. What would become then of the science of medicine and all its gloried functions?

Niemeyer, under the head of Treatment, says: "The chief point, under all circumstances, is that the patients, wherever they may be, live prudently and be under the care of an intelligent and firm physician," which is an emphatic endorsement, certainly, of the doctrine that medical interference is of consequence here.

The foundation upon which must rest the proper and successful management of all classes of consumptives is physical diagnosis. It is evident that there is much neglect in this direction, especially in the early history of suspected cases, just when we most need to understand what is to be dealt with. Let it be understood that the proper conduct of this disease by no means implies energetic medication, but as a rule, prove the reverse to this. Now suppose we mistake one case in the outset, the result, nine times out of ten, will be an active and injurious drugging of the patient. After cases have so far advanced as to require no professional acumen in diagnosis, the time has most likely passed when our services can accomplish anything. This neglect, I am disposed to believe, is from carelessness or indifference, as has been suggested, and not that one claiming to be a general practitioner of medicine has not the requisite knowledge. The principles upon which physical diagnosis rest are so simple, and the phenomena elicited in the procedure so easily understood, that to be ignorant in this direction is wholly inexcusable. At least a fair degree of discrimination in this work is within the reach of all.

An average examination is something like this: "Our patient is questioned as to cough, pain, expectoration, and other points in the history of the case. The ear is laid at a few points over the chest, with a mass of clothing intervening; the chest walls are thumped here and there, and the examination is completed. Now if the case be in its infancy, we are after such an investigation sure to say to the subject that there is no occasion to fear lung trouble, for it is rather agreeable to impart such information, and is extremely gratifying to the patient, who has been living between hope and fear to be so advised. But a day will come when that mistaken judgment will react unpleasantly to both patient and physician. It should be made an invariable rule to examine at length and with very great care all suspected cases, when they first present themselves. Without presuming to instruct this learned body of medical men in the details of physical diagnosis, I will mention two features in the procedure, which are of great importance, one as an incentive to the physician and the other to the patient: First, when prudence and decorum will allow, the chest should be wholly uncovered to the waist. The patient thus stripped and standing before us, the investigation is easily made, and one will hardly stop short of a complete

overhauling. If only the upper portions of the chest are exposed and examined, a diseased lower lobe, and this is known to be exceptionally the primary seat of the disease, may escape detection. Second, let the examination be made, if possible, with no intimation from the patient as to his idea of the seat of the disease. These patients usually know of some feature, pain, rales that they feel on inspiration, or inability to lie on one side, that suggest to them the location of the disease. Now, if after an examination made with care, we point out a locality that corresponds with the patients' experiences and suspicions, we carry conviction to the mind of the ailing one, as to our ability to detect and locate the disease, and thereby secure confidence, a matter invaluable in the subsequent management of the case.

A practice which is wrong and rather general, is the deception of patients as to their condition, when it is discovered that a lung trouble exists. I noticed a few years since in a discussion in a medical body, now forgotten, concerning the duties of physicians toward all hopeless cases of disease, that a number favored withholding from the patient his condition as being conservative. It was to their minds the physician's work to prolong life under such circumstances, and to do so, deceive, if necessary, to the last moment. This plan in a general way is of questionable propriety, yet in exceptional cases probably allowable. But as to the deceptive policy toward consumptives, I believe it to be harmful. Of course there must be good judgment and nice discrimination in this matter, but the physician, who, as a rule, makes no concealment at his first interview, has laid the foundation for a full understanding between himself and his patient ever afterward. And if such patient seek for, and find one to give a more cheerful medical opinion, as frequently occurs, he soon learns that it is safer to be in the hands of one who has the ability to properly interpret his case, and the candor to advise him of his real condition. To inform a phthisical patient guardedly and freely as to his disease, does not in the least lessen his chances for improvement. On the other hand the mind is more at rest, the patient being in possession of at least as much information concerning his condition as those around him, is fortified against daily hints that would otherwise confront and annoy him.

A Case: A young man had moderate manifestations of lung disease for two years. During this time he had consulted numer

ous physicians, quacks and regulars, and had by all been advised that he had no lung disease, although his symptoms all this time were such as to lead his parents to suspect the existence of consumption of the lungs. The various diagnoses were, "Indigestion," "Disease of the liver," "Catarrh of the throat" and "Bronchitis." It was reserved for a homeopath to diagnose typhoid fever, during the last stage, visiting twice a day for weeks. I called to see him two weeks before his death. I found an examination of his chest to be exceedingly offensive to him. He told me in sharp terms that he had no trouble with his lungs. His will power at this late day was gone, and he refused to believe anything I had to say to him. He died most wretchedly deceived to the last by the erroneous statements of his medical advisers. Had this young man been fairly dealt with, this mental unrest at the last moment, as an overflowing cup of bitterness, would have been spared both himself and friends.

Another Case: A young man in the last stage of consumption came to my office, giving this history: For two years he had been coughing, but had used only patent medicines, until about two months before this, when he had consulted a physician, who told him that "from his throat down he was as sound as any man." He was told that as soon as the hoarseness and throat trouble could be relieved he would be well. The treatment was inaugurated by giving him a strong solution of nitrate of silver to use as a gargle. I found the entire buccal membrane intensely red and very tender, as a result of this diabolical wash. Unrolling a muffler from his throat, a large ugly blistered surface was discovered. Here was torture to a dying man, and torture that no doubt helped him die.

These cases are fairly illustrative of the way consumptives fall all around us. It would be gratifying to know that the regular profession was in no way responsible for this state of affairs. It is true that the long list of unclassified quacks of all shades, and every degree of ignorance abound, and prey ruthlessly upon these unfortunate sick. But it is true also, that many in our own ranks, who are competent and useful in general work, are in the particular of physical diagnosis singularly defective. The consequence of this shortcoming is, that the early phenomena in scores and hundreds of phthisical cases are not appreciated. The management of such cases will be as bad as the diagnosis has been faulty. It must be

remembered that physical signs do not always have complementary rational symptoms. There may be absence of pain, cough, and indeed expectoration, and yet the disintegration of the lung tissue go steadily forward.

In Dickson's practice is the following: "I attended in the last weeks of his life a literary gentleman, whose physicians had treated him for chronic hepatitis and diarrhoea. He had labored under no dyspnoea and almost no cough. In complying with his request that his body be examined post mortem, we found his liver little, if not at all affected, and his lungs full of tuberculous matter, and much disorganized. This "literary gentleman" had no doubt selected scholarly physicians, but they made a record of total ignorance of physical signs in this case.

It is neither unjust or extravagant to say that of all the sick, none fare so badly in the hands of medical men as consumptives. Toward this large class of sufferers there is sadly needed a quickening of the conscience of the profession as to its duty. Let us hope that the day is near by when men who are protected by the doctorate, and who are the fellows of our medical societies, will watch with interest their phthisical patients, and will cease to talk of "dyspepsia," "bronchial irritation," and "disease of the liver," when unconsciously treating pulmonary consumption in its closing stages. Let us leave such blunderings to the quacks.

Book Reviews.

A CLINICAL TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM.
By M. ROSENTHAL, Professor of Diseases of the Nervous System, at Vienna. With a Preface by M. Charcot. Translated by T. Putzel, M. D. Vol. II., pp. 200, 8vo.

We presume this volume completes the book, though it is nowhere so stated; at any rate it renders the book very complete, and compels us to retract much that we said of its deficiencies in noticing the first volume, which the publishers unfortunately presented to the medical public as though it were a completed book, the title page of the first volume not being indicated as Number one, and having no reference to the second, very interesting, volume before us.

In this number the diseases of the anterior portion of the spinal cord, hysteria and its concomitant nervous disorders, the spasmodic cerebral and spinal neuroses, the neurosy associated with tremor and disorders of coördination, the toxic and sexual vaso-motor trophic, neuroses, and diseases of the peripheral nervous system, are well discussed and portrayed.

The chapters are all tersely written and present much in sufficiently small space. But little exception can be reasonably taken to the view expressed in the volume before us. Where dissent might be offered the questions are still *sub judici* in the professional mind.

The second volume largely supplies the deficiencies of the first, and the completed book makes a treatise which may be profitably consulted upon almost any subject in neurology, due allowance being made for the rapid advance in this department of medicine, since even the French edition appeared in 1878.

To keep pace with which, whatever books we read, the Periodical Medical Literature must be constantly read.

C. H. HUGHES.

PARACENTESIS OF THE PERICARDIUM. A Consideration of the Surgical Treatment of Pericardial Effusions. By JOHN B. ROBERTS, A. M. M. D., Lecturer on Anatomy in the Philadelphia School of Anatomy, Etc., Etc. Philadelphia: J. B. Lippincott & Co., pp. 98, 8vo.

This is a monograph on a very important surgical procedure. Its *raison d'être*, the author informs us in the preface, is the fact that "There is no volume published, and very little contained in the text books, on this subject.

Before entering upon the subject proper, he first devotes a

chapter to the consideration of the conditions that give rise to the pericardial effusions during life, and mentions as such, inflammation of the pericardium; diseases which lead to a transudation of the blood elements into the cellular tissue and into the various cavities of the body (hepatic, renal and perhaps even cardiac affections); intra-thoracic growths by instituting inflammatory processes by reason of their contiguity to the pericardium, or on account of emptying their contents into the sac, or by interference with the neighboring circulation due to pressure; and finally, an abscess or an empyema, which may find its way into the pericardium. The character of the fluid varies with the cause which induces its presence. The amount of the effusion, although not a certain guide for the course to be pursued, is a matter of much importance, for upon it and the influence which it exerts upon its surroundings depends the propriety of tapping. The latter, the symptoms and signs of pericardial effusions, the differential diagnosis and the prognosis are discussed in the second chapter. The prognosis is most favorable in those cases in which the exudation is sero-fibrinous and of small amount; but if the sac contains many ounces of fluid the absorbents will probably be unable to deal with it, the pericardium will become more and more distended, and the fluid in time purulent, in which case only a surgical operation can give relief. Even should there be a spontaneous evacuation and a fistula be produced, the patient is likely to die from exhaustion. In non-inflammatory transudations the prognosis is bad, because of the nature of their cause and in the hemorrhagic form the outlook is also exceedingly unfavorable on account of the important blood changes (purpura, scorbutus), to which it is due, and which are inconsistent with rapid restoration of health, yet our author considers such cases more amenable to treatment alone than those in which pus fills the sac, and in the latter he advises tapping at a comparatively early period, before the surrounding structures suffer from the pathological processes going on within the pericardial membrane.

The treatment, with which the third chapter deals, he divides into medical and surgical. When therapeutic measures fail, we must have recourse to operative measures; when we have exhausted our medical armamentarium in cases of dropsy of the pleura, peritoneum, etc., we decide that that which cannot be absorbed must be removed by tapping. The same reasoning is applied by our author to pericardial effusions, and he is of the opinion that the results obtained by those who possessed sufficient courage to perform paracentesis in suitable cases warrant the conclusion.

After giving a brief history of the operation, which was proposed in 1649 by Riolan, and a very minute description of the anatomy of the parts concerned, the indications for tapping are formulated thus: "Whenever the effusion, whether it be serum, pus or blood, accumulates so rapidly, or in such quantity that

it threatens to destroy life and refuses to undergo absorption by ordinary treatment, it is the duty of the attendant to tap the distended sac."

Chapter fourth treats of the methods of operating. Preference is given to aspiration with Potain's aspirator, to which is attached an aspirating trocar of the author's own design, for which he claims that it is innocuous to the heart, and that its curved extremity allows suction to be exerted to a considerable extent at the very bottom of the pericardial sac. It consists of a small, needle-pointed cylinder, within which slides a canula attached to the air pump. The canula at the end is made flexible by a spiral, and when it is thrust out beyond the end of the needle, it curves downward; but when it is pulled backwards the end becomes straight and is entirely concealed within the outer puncturing needle. The canula is pierced with a hole, and has two fenestras to give exit to the liquid.

So long as the pericardial contents do not become purulent he does not favor the injections of fluids, after aspiration with the idea of modifying the secreting surfaces or of inducing adhesions of the layers of pericardium. In purulent pericarditis he advises injection and washing out of the cavity with carbolic solutions, and if repeated tapping becomes necessary from the rapid secretion of pus, causing imminent danger, he favors an opening to secure permanent drainage.

"The point of puncture" he discusses at some length, carefully weighing all the arguments advanced in favor of the different localities, and arrives at the conclusion that the pericardium can be entered with the least danger in the fifth intercostal space nearer the rib below than that above, in order to avoid injuring the intercostal artery, from two to two and a quarter inches to the left of the median line of the sternum.

The dangers of the operation are, wounding the pleura and the diaphragm, hæmorrhage from wounding the internal mammary artery and the possibility of striking the heart, and perhaps entering the cavity of the heart. The risk of hæmorrhage from the mammary artery is little, if proper care be taken in selecting the point of puncture, and the point selected by the author, we are told, precludes the possibility of injury to the vessel. Even in experienced hands (Roger, Baizean, Hulke,) the trocar has been thrust into the substance and cavity of the heart, and although no great fatality seems to attend this accident, it is one to be avoided with scrupulous care. Death from the operation itself is of such rare occurrence that but one case has been recorded.

The various objections urged against the operation are next taken up seriatim and answered, after which a concise but complete resume is given of the steps to be pursued in the management of complications that may exist as causes or results of the effusion in the pericardial cavity.

Chapter sixth contains a table of sixty cases, collected from various sources, in which the operation has been performed. Of these forty-three were males, twelve females, and in five cases the sex is not mentioned. In regard to the ages of the patients it appears that twenty were under twenty years of age, twenty-five over twenty years, and those whose age was not given, numbered fifteen. The recoveries were twenty-four or forty per cent., certainly a very good average, when the almost always fatal result of expectant treatment is remembered. The mortality of sixty per cent. is inclusive of all cases found on record, but very many of the patients had serious diseases complicating the pericardial effusion; of the thirty-six who died, only five suffered from uncomplicated pericardial effusion.

There can be no question about the adoption of paracentesis of the pericardium into the family of accepted surgical procedures, and Billroth would not now characterize the operation as a prostitution of surgical skill or speak of its resemblance to a surgical frivolity.

A complete index closes this instructive little volume, which should be read by every one who is desirous of being abreast with the most advanced and perfected methods of relieving human suffering.

F. J. LUTZ.

A SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M. D., late Professor of Hygiene in the University of Pennsylvania. To be completed in three large and handsome royal octavo volumes, containing in all about three thousand clearly printed double columned pages, with numerous illustrations. [Philadelphia: Henry C. Lea.]

Reynolds' System of Medicine is justly considered the most popular work on the principles and practice of medicine in the English language. We have received the first of the three volumes. This volume treats of general diseases and diseases of the nervous system. Several years have elapsed since the appearance of the first edition of this book. The contributors to this work are gentlemen of well-known reputation on both sides of the Atlantic. Each individual has striven to make his part of the work as practical as possible, and the information contained is such as is needed by the busy practitioner. The pages are printed in double column, and although the type is small, the shortness of the lines makes it easy to follow the text.

Books and Pamphlets Received.

Photographic Illustrations of Skin Diseases. By George Henry Fox, A. M., M. D. Complete in twelve parts; 48 colored plates, taken from life. [New York: E. B. Treat, No. 805 Broadway.]

Part I we have not received.

Part II contains Keloid, Rosacea, Psoriasis, Nummulata, Ichthyosis simplex.

Part III contains Fibroma Pendulum, Varicella, Zoster Pectoralis, Zoster Lumbalis, Eczema universale.

Part IV contains Leucoderma, Chromophytosis, Favus Capitis, Favus Corporis, Eczema Cruris.

Part V contains Eczema Infantile, Eczema Papulosum, Eczema Ichorosum, Eczema Pustulosum, Eczema Squamosum.

Part VI contains Eczema Barbæ, Eczema Manum, Eczema E. Venis Varicosis, Ulcus Varicosum, Psoriasis Annulata.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M. D., F. R. C. P. Third American edition, revised and corrected by the author, with notes and additions by Robert P. Harris, M. D. With two plates and one hundred and eighty-three illustrations. [Philadelphia: Henry C. Lea. 1880.]

The Medical Record Visiting List or Physician's Diary for 1880. [New York: William Wood & Co.]

C. C. Pease, agent for Western Branch, St. Louis.

A Manual of the Practice of Surgery. By W. Fairlie Clarke, M. D. (Oxon.), F. R. C. S. Third edition, revised, enlarged and illustrated by one hundred and ninety engravings on wood. [New York: G. P. Putnam's Sons. 1880.]

Lectures on the Diseases of the Nervous System. Delivered at La Salpêtrière. By J. M. Charcot. Translated from the second edition by George Sigerson, M. D., M. Ch. With illustrations; pp. 271, 8 vo. [Philadelphia: Henry C. Lea. 1879.]

For sale by the St. Louis Book and News Co.

A Text Book of Physiology. By M. Foster, M. A., M. D., F. R. S. With illustrations; third edition, revised; pp. 220, 8 vo. [London: Macmillan & Co. 1879.]

For sale by the Hildreth Publishing Co., St. Louis, Mo.

Lectures on Practical Surgery. By H. H. Toland, M. D. Second edition, illustrated; pp. 520, 8 vo. [Philadelphia: Lindsay, Blakiston & Co. 1879.]

For sale by the Hildreth Publishing Co., St. Louis, Mo.

New Instruments.

A DOUBLE CANULATED NEEDLE.* By D. A. CURRIE, M. D., Englewood, N. J.

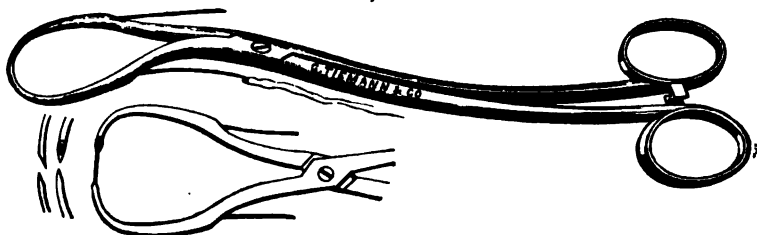


Fig. 4.

This is a new instrument; it is of very simple construction, consisting of two hollow, curved needles, with beveled points, and handles attached, as may be seen by the upper illustration in the above woodcut, which shows the instrument *closed*. The lower illustration shows it open, with the suture passed through the needles. The intention was to use wire sutures only, but reference to the illustration shows a thread about to be drawn through by means of a fine flexible hook, thereby inducing the introduction of silk sutures perfectly easy.

AN IMPROVED ÆSTHESIOMETER.

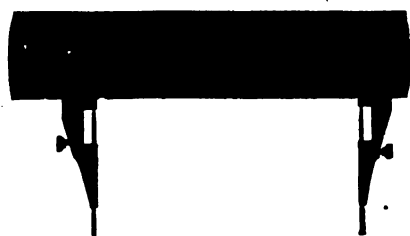


Fig. 5.

Before the State Medical Association, which met at Columbia, Mo., last June, Dr. C. H. Hughes, of St. Louis, described an improved æsthesiometer, one side of which is illustrated in the accompanying cut. Its distinguishing features are its convenience, compactness and utility in the hands of those who have not become expert, through long practice, in æsthesiometric examinations. It has reversible points, blunt and sharp, for determining both anæsthesia and analgesia, and on one side a register of the principal distance points of normal tactile sensibility. The sliding point can be fixed, when required, by a screw, so as to avoid mistakes in tactile mensuration. The scale is both English and decimal, and the whole folds up like a pocket-knife.

*Cut from Aloe & Hearnstein, St. Louis.

News Items.

NEW JOURNALS.

No. 1, Vol. I, of the *Alienist and Neurologist*, is on our exchange table. Its appearance is quite creditable to its publishers, and its contents are equally creditable to its editor, Dr. C. H. Hughes' judgment in the selection of his matter. In his original communications we see the following: On the Propositions of the Association of Superintendents of American Hospitals for the Insane. By Jno. Curwen, M. D., of Harrisburg, Penn. The Sequences of Neurasthenia. By George M. Beard, M. D., of New York. A Clinical Inquiry into the Diagnostic Significance of Absent Patellar Tendon Reflex. By C. H. Hughes, M. D., of St. Louis. Aphasia and Agraphia with Progressive Improvement. By D. V. Dean, M. D., of St. Louis. Studies on Cerebral Thermometry. By Drs. D. Maragliano and Z. Sepelli. Translated by Jos. Workman, M. D., of Toronto, Canada. Relief in Important Nervous Diseases, following Enucleation of the Eyeball. By Geo. T. Stevens, M. D., of Albany, N. Y. Subsequent History of Twenty-five Persons Reported Recovered from Insanity, in 1843. By Pliny Earle, M. D., of Northampton, Mass. Syphilitic Hypochondriasis. By Allan McLane Hamilton, M. D., of New York. The Curability of Insanity vs. "Recoveries from Mental Disease." By Pliny Earle, M. D., of Northampton, Mass.

Galveston Medical Journal.—We have received the first number of this journal, which is, we believe, the only medical journal in the State of Texas. Our contemporary has a large field, and one which will, we know, appreciate a good journal, for it ranks fourth on our subscription list.

A NEW JOURNAL.—A new journal has appeared in Baltimore. It is called the *Practitioner*, and announces itself to be an independent monthly journal, devoted to medical, surgical, obstetrical and dental science. It is to be edited by Harvey L. Byrd, A. M., M. D., and Basil M. Wilkerson, D. D. S., M. D. The contents of the first number are very good, and the typographical appearance of the journal excellent. We are inclined to criticise the name it has taken. There are now four journals having an almost similar title: *The Practitioner*, of England; *The American Practitioner*, of Louisville; *The Country Practitioner*, of New Jersey; and the journal now before us. The editor speaks confidently of the future, and we trust he will not be disappointed.—[*Med. Rec.*

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a maximum and minimum thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—DECEMBER, 1879.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	34.0	55.5	18	19.5	27.5
2	42.5	59.5	19	24.5	32.5
3	37.0	40.5	20	21.5	24.5
4	38.0	46.0	21	21.0	43.0
5	45.5	61.0	22	27.0	31.0
6	49.5	50.5	23	25.0	34.0
7	38.5	41.5	24	12.0	16.5
8	32.5	37.5	25	1.0	12.0
9	32.5	62.0	26	8.0	23.0
10	37.5	41.5	27	22.0	39.0
11	20.0	27.0	28	29.5	45.0
12	17.0	26.0	29	37.0	48.0
13	17.5	32.0	30	23.5	31.5
14	29.0	39.0	31	31.0	34.0
15	14.5	27.5			
16	26.0	55.5	Means.	26.9	37.7
17	23.0	27.0	Monthly Mean.	32.3	

Quantity of rainfall, 2.30 inches.

MORTALITY REPORT.—CITY OF ST. LOUIS.

FROM DECEMBER 6, 1879, TO JANUARY 10, 1880, INCLUSIVE.

Rheumat. art. acut.	1	Exhaust. P'm Lab.	4	Convulsions & Trismus Neonatorum	72	Placenta Prævia	1
Measles	4	Inanition, Want of	14	Hydrocephalus and	14	Apoplexy	5
Syphilis	4	Breast Milk, etc.	14	Tub. Meningitis	5	Cyanosis and Atelectasis	1
Scarlatina	2	Alcoholism	18	Meningitis & Encephalitis	14	Premature & Preternatural Birth	1
Pyæmia & Septicæ	8	Rheumatism & Gout	2	Other Diseases of the Brain and Nervous System	14	Deaths by Suicide	6
Erysipelas	4	Cancer and Malignant Tumor	17	Cirrhosis of Liver and Hepatitis	16	Deaths by Accident	27
Diphtheria	26	Phthisis & Tuberculosis, Pulmon.	97	Enteritis, Gastroenteritis, Peritonitis, and Gastritis	28	Congenital Deformity	34
Membran's Croup	6	Bronchitis	19	Bright's Disease and Nephritis	10	Total Deaths from all Causes	706
Whooping Cough	3	Senility	29	Other Diseases of Urinary Organs	41	Total Zymotic Diseases	147
Diabetes Mellitus	4	Pneumonia	67	Encephalitis	1	Total Constitutional Diseases	153
Post Part. Hem'ge	1	Heart Diseases	33	Other Diseases of Mesenteric and Scrofula	28	Total Local Diseases	306
Typhoid Fever	9	Other Diseases of Respiratory Organs	25	Aneurism	1	Total Developmental Diseases	67
Cerebro Spinal Fe.	10	Osteomyelitis	1	Atheroma Arter.	1	Deaths by Violence	33
Remittent, Intermittent, Typho-malarial, Congestive & Simple Contin'd Fevers	8	Encephalitis	1				
Puerperal Fevers	3	Mesenteric and Scrofula	28				
Diarrhoeal Diseases	25	Aneurism	1				

CHAS. W. FRANCIS, Health Commissioner.

THE
SAINT LOUIS
MEDICAL AND SURGICAL
Journal.

VOL. XXXVIII—FEBRUARY 5, 1880—No. 3.

Original Contributions.

ARTICLE IV.

THERAPEUTIC AND HYGIENIC MANAGEMENT OF CONSUMPTIVES. By
JAS. F. HIBBERD,* M. D., of Richmond, Ind.

My paper is intended to be a plea for simplicity and rationality in the management of consumptives. I am not about to tire your ears by repeating the oft told tale of the ravages of consumption among the constituents of the gentlemen present.

My desire is to convince that bad management may grievously increase the suffering of the victims of this frequent malady; nay, more, may cause some to die who, under good management, would live.

I shall not weary you with a discussion of the distinctive characteristics of tubercular, of catarrhal, and of fibroid consumption, not because the differential diagnosis of these states is not important, but because the general remarks I have to submit, if of any value, are applicable equally to all and singular of these thoracic disorders.

My purpose is, if possible, to excite a conviction in my fellow-general practitioners of medicine that a careful survey of our duties and privileges with our consumptive clients will notify us,

* Read before the Tri-State Medical Society, held at Evansville, Ind., November 4, 1879.

unfailingly, that we must resist the pressure that is almost certain to be brought upon us to give too much medicine and prescribe or sanction wrong hygienic regulations.

Some of our consumptive patients will be found among the affluent, who can command every luxury, and can afford to gratify every whim; some will be met with among the poor, so oppressed by pinching poverty that they are minus the necessities of common life; but the majority of them are found in the major class of society, the well-to-do mechanic, business man and laborer, who can afford all the necessities and some of the luxuries of their locality and time, but who cannot be sent away from home for climatic treatment, and who must have regard for economy in their management at home.

It is among this last class that the general practitioner will find most of his consumptive patients, and those who will longest require his skill, and it is more especially for these that I plead for simplicity in medication and hygienics, begging that no effort be made with purturbating medicine to vicariously supply the place of the luxuries of the wealthy, nor by directing the superheating of imperfectly ventilated rooms, attempt to supply a Florida climate in an Indiana winter.

Am I doing violence to the status of the profession in assuming that at least a moiety of general practitioners of to-day look with favor on the long list of drugs recommended for consumption by our text books, by our teachers, and loudest of all by our manufacturing pharmacists, and that not a few of our medical men still cling to the conviction that many prepared remedies have a special value, if not a specific virtue, in consumption?

In April, 1867, I saw Mrs. S., æt. 33 years. She had been treated by several physicians and by Dr. Blank for a number of months. She was thin, pale, feeble and feverish; had a bad cough, with expectoration; had moderate appetite, which, however, she had been forbidden to indulge, except in what used to be known as "sick food," viz., thin meat slops, panada, jellies, tea and coffee, and various farinaceous grains in sundry conditions.

On taking her under my care her diet scale was liberalized at once; indeed all restrictions were abolished, except such as her own experience dictated, and she was encouraged to eat savory meats, fruits, vegetables, milk, eggs, and all kinds of palatable nutritious compounds.

Her late physician had put an embargo on all out-door exercise because of the danger of the variable vernal weather, inducing colds and aggravating especially her cough. This embargo was promptly raised; she was instructed to suitably array herself and take the open air daily, which she did, but at first with fear and trembling, because her own untutored notions harmonized with Dr. Blank's professional views, that the direst thing in her condition was to catch cold, and the surest way to meet with this misfortune was to go out of doors.

A formidable array of cough syrups, phosphates, "chemical food," alterants and bitter tonics were discarded, and in lieu thereof some quinia was prescribed, and a little morphia—mark, I say a *little* morphia—was given to soothe her cough and—dare I say it, to strengthen her digestion. Chlorate of potash was given as a placebous stand-by, and per consequence in placebous quantities.

She had been failing for months, but she began to improve at once and soon had gained some weight, considerable strength, was taking fair exercise in-doors and out, had good appetite, and felt like a new being.

Having attained the best degree of health her constitutional infirmity and attendant damaged lung admitted of, she remained, with some fluctuations, in about that average condition until in the summer, when she went to the hill country of Ohio, and died there the following year.

This was from the first recognized as a hopeless case for recovery, but the change in management did all that was anticipated, added many fold to her life comfort while under my observation, and this I hold to be a consummation worthy of earnest work when a cure is beyond our powers.

Another Case: J. H., a large man aged, say 45 years, came to me in October, 1872, emaciated, feeble, with daily exacerbations of fever, cough, free expectoration, poor digestion, weary and worn.

Had been physiced and fretted with perturbing medicines, taken mercurials, nauseating expectorants, some domestic preparations and patent medicines, and had maintained a low diet, both from inclination and injunction.

Directed him to keep out in the air, or at least away from the close, bad air of his shop, eat everything that was good, gave him quinia, small doses of chlorate and nitrate of potash with licorice,

through the day, and, say the tenth of a grain of morphia at night. In a month I discharged him from drugs, and by the new year he was well, and has remained so. Could he have recovered without a change of management?

Among the drugs that at one time or another have had attributed to them a special, if not a specific remedial agency in consumption, may be numerated cod liver oil, certain phosphates, certain hypo-phosphates, chlorate of potash, extract of malt, whisky, the inhalation of the vapors of certain balsams, so-called antiseptics, and the like.

Twenty-five years ago every doctor prescribed cod liver oil, or a disagreeable stuff called cod liver oil, to every consumptive he attended, but now the refined and palatable preparation bearing the same name, is counted of small value by those best cultivated in the therapeutics of the phthisical.

Many of my audience will remember that near twenty years ago a promising physician in Iowa promulgated the theory that the nascent oxygen derived from the decomposition of chlorate of potash in the human system would cause the breaking up and absorption of pulmonary tubercles, and to prove the entire innocence of the drug, himself took an overdose, and died of its effects. The sacrifice was fruitless, for his theory, never extensively adopted, long since fell into complete desuetude.

Another man, a foreigner, I believe, some fifteen years since, so far convinced the medical world that the phosphates of iron, lime and soda were of specific value in consumption, that the progressive of said world were dosing all such patients with the drugs singly or combined, and at a later day the hypophosphites had a like reputation, and for a space were perhaps equally popular.

It is not many years since the fashionable therapeutics of the day demanded inhalation for consumptives, and diverse stylish apparatuses were manufactured for conducting the operation, and the vapor of many medicaments were deemed useful.

By these remarks it is not intended to assert that these drugs should never be administered in consumption, but to make the point that they have no specific value in that disease, and if they are given, it must be to meet some indication not necessarily symptomatic of consumption.

And the same observation may be made concerning a list of medicines recited in a paper read to the last meeting of the State

Medical Society of Ohio by Dr. Bartholow. This distinguished physician numerated about thirty drugs to be relied on in consumption, and the manner of presenting them leads one to infer that consumptives must, in Dr. B.'s estimation, be constantly dosed with one or the other of them. Perhaps the author did not intend to inculcate this idea, but it is the reasonable conclusion one legitimately reaches on reading his paper. Indeed, in presenting atropia as a remedy for the hydrosis of consumption, he says: "It is prudent to begin with a comparatively small dose, say $\frac{1}{120}$ of a grain, and increase the quantity according to the effects, but it is rarely necessary to give so large a dose as the $\frac{1}{40}$ of a grain. The amount necessary to stop the sweating is the dose required." Literally inforced, how many patients would survive the execution of this injunction?

Stillé, in his therapeutics and *materia medica* mentions twelve drugs as remedies in consumption and in the National Dispensatory he names twenty-four, and it is a curious fact that only one article—cod liver oil—is found in both lists. The former book was published in 1860, the latter in 1879. According to Stillé, therefore, the number of drugs profitable in consumption has just doubled in nineteen years, but all remedies that are now valuable are fresh recruits except one.

If we look upon consumption as a compound disease, which it really is, and we have regard to some of its more prominent constituents, and then consult Stillé, in the same dispensatory, for his commendation of remedies for these constituents, severally, we shall find an extended catalogue of drugs at our command. For example, dyspepsia may be counted a constituent of consumption, and for this Stillé enumerates eighty-seven remedies; another constituent is bronchitis, and for this he has 132 remedies; hæmoptysis is a third, and for this seven remedies, and opium not among them; for cough, nine remedies; for diarrhœa, 100 remedies; for colic sixty remedies; making a total of over 400 remedies for consumption and the constituent disorders of which it is composed.

Does somebody say that it is not a fair consideration of the character of a dispensatory to attribute to its author an approval of all applications of medicines narrated in his book, it being but his reasonable duty to collate the sentiments of others and present them to his readers whether he approve them or not? But a sufficient answer to this challenge is found in the fact that such

an author is bound to pick out and publish, from the mass of matter coming under his notice, such recommendations, and such only as he may deem to have merit.

Dr. Joseph Lieutand, a Frenchman, physician to Louis XV., wrote a synopsis of practical medicine, which was translated and published in Philadelphia in 1816, and his recommendations for the treatment of consumption, are venesection, cathartics, milk—especially of asses and mares—borage, lung wort, the capillary herbs, colt's-foot and maiden's-hair, Speedwell, St. John's wort, ground-ivy, benzoin, gum ammoniac, natural balsam, balsam of Lucatellus, sulphur, tar-water, Morton's balsamic pills, diacodium, pills of Cynoglossa, horse-back riding, walking near rivers, cautery to the occiput or scapula. Avoid wine, fermented liquors, and salted or peppered food. But he advises caution in the use of venesection, saying, "But from this inconsiderate blood letting I remember to have seen many hurried off to their ethereal habitations."

A standard work, not quite so old as Lieutand's, gives a compact statement of the treatment of consumption in these words: "The antiphlogistic regimen, repeated small bleedings, digitalis, blisters, antimonial and squills. A seton, nutritive diet, an emetic of sulphate of copper or ipecacuanha every second morning, and Griffith's myrrh mixture three times a day, exercise, warm clothing, bitters of cinchona, opium. If sweating be troublesome, elixir vitriol, if diarrhoea, ripe fruits and catechu."

It may appear like a waste of words and a misappropriation of your time to rehearse these old therapeutic proceedings, but my purpose is to convince that the treatment of consumption in all the earlier years of the century followed the fashion of the day just as it does now, and on this fact lay a foundation of unimpeachable substantiality for the superstructure of simplicity in the hygienic and drug management of consumption that I desire so heartily to advocate. Not that I wish to inculcate the idea that there is no help in hygiene, and no merit in medicine, but to excite faith in the proposition that nature unassisted can do much for consumptives, that nature properly assisted can do more, and to call attention most impressively to the fact that presumptuous, officious and perturbing art may not only abrogate the curative tendencies of conservative nature, but may actually join the corroding disease in passing prematurely the conscript of consumption beyond the shadows of time. In the practical lan-

guage of Lieutand these victims may thus be "hurried off to their ethereal habitations."

The temptation to over medicate consumptives is strong, multifarious and enduring, perhaps not equalled in any other chronic and equally serious ailment. The patient himself is anxious to improve and urgent for medicine to do it. Many of his friends tell him of many doctors who have had wonderful and rapid success in cases like his. Most of his visitors know of remedies—each of a different one—domestic or proprietary, which has cured many consumptives. These and other proddings have their effect on the sensitive doctor, who feels impelled thereby to a more active and impressive treatment of his patient to convince him that the reason he does not yield to any of these suggestions is because he can do better. And another incentive pushing the doctor to much medication and many drugs is, if he be newly fledged in the profession, the array of hundreds of drugs recommended by his standard text books, and if he have had practice, by his own experience, added. In other cases he has exhibited divers medicines in succession, his patients improving, some after one remedy, some after another, and he feels derelict until he has used all, in the case in hand, that have been of service before.

But experience does not necessarily create wisdom. *Post hoc ergo propter hoc* is the blinding fallacy of practical medicine and its misleading, false logic will continue to guide us wrong until we shall be so fortunate as to understand the natural history of diseases. This will be difficult to obtain in consumption because it is more than a conscientious physician, who believes he knows of means to help, can or ought to do, to stand idly by and let a consumptive suffer unassisted, even if recovery were to be the certain result. And yet it will be but a staggering progress in therapeutic improvement we shall make until we do know the natural history of the disease; not that this is required to discover to us that much is done in the treatment of consumption that is mischievous, but that it is essential to enable us to reach the true in its management.

Prof. Flint, senior, has placed the profession under many obligations in this behalf by his writings, and most recently by a paper read to the New York Academy of Medicine in May, 1879, entitled "Self-Limitation in Cases of Phthisis." In this paper Prof. Flint refers to 670 cases of consumption under his observa-

tion during thirty-four years, and of these 44 got well and in 31 the disease ceased to progress without the aid of medicine or special alteration of habits. In 75 out of 670 cases of consumption, therefore, the tendency of the disease to self-limitation was sufficient, and this amounts to 11.2 per cent. Can any one in this audience affirm that he has had a better success than this, under whatever treatment he has instituted? Is there, indeed, any one in this assembly who can assert that he has had a personal experience with consumptives that led him to believe that in every 1000 cases 112 would recover or the disease become non-progressive, under the very best hygienic and therapeutic management? And yet here is the unequivocal testimony of one of the most acute and candid medical men in the Union, that this percentage did recover or become non-progressive, within his knowledge, uninfluenced by medicine or special hygiene. Is any physician present prepared to doubt or ignore the statement of Prof. Flint? Not one, I venture to assert, and if not, what an impressive lesson his figures present. Conceding that 11 patients in every 100 cases of consumption will get well if we give them no medicine nor management at all, would not our experience in the disease raise doubts, interior and unvoiced, whether we had not done mischief in its management by our much art, for I think it safe to assume that we do not restore 11 cases in every 100 we treat. For this we must find our justification and our consolation in what it is fair to presume to be a fact—that those consumptives who trust to nature and get well, we neither see nor have knowledge of, while those who trust to nature and nature fails them, come under our charge with the seal of death already upon them. Still, I repeat, Flint's statistics constitute a lesson most opportune, most impressive, most valuable, and one that I deem unequivocally to sustain and emphasize the plea I make for simplicity and caution in the administration of drugs to consumptives.

While I enter my protest against wrong and excessive medication in consumption, it must not be held to imply that I deem the physician should, in the presence of a consumptive patient, fold his arms and do nothing. Instead of this, he should be active, vigilant and earnest. He should seek to establish the patient's faith in his thorough knowledge of his ailment and his ability to treat it as successfully as it can be treated.

Recognizing that climatic treatment for certain cases is valuable, let him send his patient to a suitable region if his condition

demand it and he can afford the remedy. If one or the other reason forbid his seeking other localities, remember that proper hygienic surroundings at home are of equal or greater importance than drugs. Then discard the depleting remedies, including blisters, tartar emetic and croton oil eruptions; all nauseants, as cough remedies; all drugs that interfere with the appetite, digestion and assimilation; and every possible and plausible simple or compound that claims a specific virtue for any symptoms of consumption, and has no other recommendation; and this will leave the practitioner on the only safe ground for the administration of drugs in consumption, and he will find that about all he has left of value for their essential and direct and positive medicinal effects are cinchona and opium, or rather their alkaloids, and possibly iron. Mark, I say direct and positive medicinal effect of drugs, for without denying that cod liver oil, extract of malt, whisky and similars may be valuable in consumption. I suppose if they are, it is as nutrients, and not as medicines.

My abnegation of disturbing medication in consumption does not reach over into the field of treatment for the multiple complications that may intercur in the progress of the disorder. If pneumonitis, if pleuritis, if dysentery or erysipelas should supervene, it must have appropriate treatment, and appropriate in this connection includes a recognition that the new disease is one added to the old, and the two co-existing.

Other considerations are as important in the treatment as the direct influence of drugs. There are, perhaps, no patients with chronic diseases more importunate for active medication than consumptives, and this mental yearning for curatives must be gratified by real or seeming efforts on the part of the doctor, or no good progress can be made. No experienced physician has failed to note the significance of the mental states of his patients in many pathological conditions, and none will deny that consumption is among those that demand the clearest recognition of this phase of ill health. But to meet this indication does not require powerful or disturbing medicines; anything that surely does no mischief will answer, provided that it be given with the precision and earnestness that should characterize the administration of active drugs, and this should be done to maintain the faith and confidence of the patient. It may be difficult to maintain this faith and confidence through the weary weeks and months of the malady, but failing in this the physician had best

retire. It is in exceptional cases only that one finds a patient of this class so happily constituted that one may candidly tell him that but little medicine is required, that his chief reliance must be on nature and a well regulated hygiene.

And this discloses another point of interest, viz., that in the management of consumptives it is wise not to take the patient too closely into one's confidence concerning the drugs he is taking and the quantities administered. I can hardly conceive of a condition that such confidence would benefit, but clearly recognize a multitude where it would suborn the ends aimed at. Strategy is, relatively, sometimes as necessary in medicine as in war.

Let no hasty casuist arise and under a mistaken view of the proper relation of confidence that should exist between physician and patient, charge that this position is in violation of the ethics of truth and candor, that should bind the profession under such circumstances. The course of action suggested involves no violation of concrete truth or candor, and if the premises be correct, a contrary line of conduct would rob the practitioner of an important factor in the successful management of his patient, to do which would justly subject him to animadversion.

It was my intention to have further illustrated my views by reciting cases, but my paper has already reached legitimate limits, and I will close by summarizing the leading points I have attempted to present:

- 1st. Consumption is a self-limited disease; and
- 2d. It Should, therefore, be managed through its stages as is done with other disorders of its class.
- 3d. Statistics point to the conclusion that rather more than 11 per cent of consumptives will recover if left to nature entirely.
- 4th. Clinical study leads to the inference that judicious treatment may increase this percentage of recovery.
- 5th. A survey of the popular professional methods of management raises the presumption that they are far from the best.
- 6th. Consumption has no specifics and demands but little medicine, the only drugs required for their essential and direct action being the alkaloids of cinchona and opium and perhaps iron.
- 7th. Recognizing the real nature of consumption, the profession should set their faces firmly against the multitudinous remedies prescribed in many text books, and positively repudiate

the numerous nostrums now so industriously forced on the attention of practitioners by manufacturing chemists and other mercenary persons.

8th. Rational simplicity in therapeutics is desirable in all diseases; it is a scientific and a humane necessity in consumption.

Since writing the foregoing essay, I have read in the *Cincinnati Lancet and Clinic* the *Glasgow Medical Journal's* translation from the French of the ten propositions which conclude a long series of papers on pulmonary tuberculosis, by Prof. Peter. These are so apropos of the present discussion, and so in accord with my own sentiments, that I beg to submit four of them as an addendum to my dissertation, viz.:

"6. Galloping phthisis and acute phthisis are perfectly uncontrollable by any of the therapeutical measures at our command.

"8. Tubercle, indeed—and this is no paradox—shows a natural tendency to cure—1st, by softening and expulsion, a process which does some damage to the lung by producing excavation, but which may safely end in cicatrization; 2d, by fibroid degeneration of the affected part; 3d, by calcification.

"9. It is stated above that tubercle may be cured; it would be nearer the truth to say that its evolution is arrested; that it ceases to exist; that it *dies*.

"10. The grand problem, therefore, in the treatment of the tuberculosis is to enable the patient to outlive his tubercles, a problem which, in a great many cases, is certainly not insoluble."

Translations.

FROM THE FRENCH.

EXCERPTS FROM LATE FRENCH JOURNALS. [Translated for the JOURNAL.] By Dr. A. H. OHMANN-DUMESNIL, of St. Louis.

A CASE OF SPONTANEOUS VERSION.—M. Tédénat relates the following: Marie G., primipara, æt. 24, of good constitution, had an excellent gestation. On January 5, 1877, towards evening, she felt pains in the lumbar and hypogastric regions, not being very marked. At 2 A. M. they became violent; she arose and felt the escape of waters, which were abundant; this escape recurred several times. From 6 to 10 A. M. the pains, which had diminished in number and intensity, re-appeared and were again accompanied by a flow of amniotic liquid. At 12 she walked about a kilometer (nearly two thirds of a mile) to the maternity, but remained outside until 8 P. M., through some misunderstanding. During this time the pains occurred irregularly, the waters escaping in small jets.

When admitted, the presentation was easily recognized as one of the right shoulder, the back anteriorly. The shoulder occupied the center; this was in the right iliac fossa, and the feet in the left, high up. The diameter of the os was 3 to 4 cm. and dilatable. The membranes were ruptured, and the uterus was somewhat retracted. The foetal heart beats were regular.

Whilst preparations were being made to practice version, the uterus began to contract irregularly. At first a strong contraction occurred in the left half of the uterus, which became hard and tense, whilst the right half remained flaccid. The hand placed upon the head of the child felt it plainly rise, whilst the shoulder was somewhat displaced. Another contraction of a similar nature, but passing to the right, followed. The head had again assumed a higher plane, but the feet had not changed their relations. After a few moments another contraction of the left half took place. The head rose high up, and, at the same time, the feet descended, a contraction of the right half of the uterus, increasing the movement of version. After six or seven alternate

contractions, the transverse presentation had been changed into a pelvic (left anterior sacro-iliac). One hour after, the delivery was effected by the sole forces of nature. The child, a boy, was healthy, weighing 3,200 grms. (a little over seven pounds avoirdupois), and being 49 cm. (nearly 19 1-3 inches) long.

The placenta was incarcerated, but delivered without difficulty. The uterus was imperfectly bifid, a small septum being present in its upper part.—*Lyon Médical*, Dec. 7, 1879.

ARTHROPATHIES OF ATAXIC SUBJECTS.—At the Biological Society M. Regnard presented a femur from an ataxic patient, the bone being greatly reduced, the head particularly. A chemical analysis gave the following :

Organic matter	{ Osseine.....	38.
	{ Fats.....	37.78.
Inorganic matter	{ Calcic carbonate.....	11.
	{ " phosphate.....	11.9.

From this it is seen that some of the calcic phosphate was replaced by fats. This he supposes is the cause of the troubles of joints in ataxic patients.—*Gazette des Hôpitaux*, Dec. 9, 1879.

REPAIR OF BLOOD SUCCEEDING ACUTE DISEASES.—M. Hayem made the following conclusions in a paper presented to the Academy of Medicine. First, the evolution of blood, arrested during the course of an acute disease, re-appears at the time of defervescence. Second, the rebuilding of blood in homatines is effected by means of a production of homatoblasts. Third, as far as the course of these phenomena is concerned, a distinction must be made between acute lesions of short duration and rapid defervescence, and those having a slower course and whose defervescence is lingering. At all events, this repair of the blood is analogous to that which succeeds hemorrhages and particularly to losses of blood of long duration. As a consequence of the homatoblasts, the blood of convalescents contains, for a variable time, incompletely developed red corpuscles, which tends to lower the mean quantity of coloring matter in all the red discs.—*Paris Médical*, Dec. 11, 1879.

LOCAL TEMPERATURE IN ABDOMINAL AFFECTIONS.—M. Peter, in a communication to the Academy of Sciences, gave among other

interesting details the following: In ascites the temperature of the abdomen is normal or slightly lower than that of the body in general. In simple chronic peritonitis, chronic tubercular peritonitis or chronic cancerous peritonitis the local temperature is elevated from 0.8 to 2°. C. above normal.

The thermometer employed was an ordinary one applied with great care. That devised by Dr. Seguin, of New York, would no doubt produce better and more reliable results.—*France Médicale*, Dec. 18. 1879.

APPARATUS FOR THE GRADUAL DIMINUTION OF TEMPERATURE.

—M. Dumontpallier gave a description, at the Biological Society, of an apparatus having many advantages over the methods hitherto practiced. It consists of a double sheet, upon which the patient lies; between the two layers there is a rubber tube, making no less than eighty turns upon itself. Through this tube cold water is made to circulate at the rate of about 1.5 litres per minute. From the moment that the water, which escapes, marks 12° C. the gradual diminution of temperature takes place.—*Progrès Médical*, Dec. 18, 1879.

FROM THE SPANISH.

DR. A. H. OHMANN-DUMESNIL, Translator.

ANÆSTHESIA IN OPHTHALMIC SURGERY.—Drs. Fernandez and Gago, in a lengthy paper on this subject, present a record of some 178 detailed cases in support of the following conclusions to which they have arrived:

1st. Anæsthesia is indicated in very severe operations and in those in which the delicacy of the work demands perfect immobility; this being especially needed in women and children.

2d. Anæsthesia ought to be confided to a reliable person, as the result in many cases depends upon this; it is necessary that there should be no groundless alarm, and on the other hand, not too much temerity in administering the anæsthetic.

3d. Anæsthesia is contra-indicated in all persons affected with respiratory or circulatory lesions. Notwithstanding which, we have occasionally been forced to employ it in patients affected with heart diseases, and did so without their presenting alarming symptoms.

4th. Chloroform is preferable to ether.

5th. The chloroform employed ought to be chemically pure; the surgeon should test it as far as possible in regard to its various physical properties.

6th. The chloroform ought to be kept in tight bottles of 60 to 90 grms. capacity, otherwise the prolonged action of the air alters it and renders it less effective.

7th. During its administration the room in which the patient is operated upon should be kept close; a current of air prolongs the time and renders it necessary that a greater quantity of anæsthetic should be inhaled to obtain the same effect.

8th. The method of rapid inhalation is the preferable one; if symptoms of asphyxia or convulsions supervene, it is prudent to suspend anæsthesia for a short time and if the symptoms recur a second time it is better to discontinue it. The method of giving chloroform intermittently is both absurd and dangerous.

9th. Anæsthesia should not be undertaken without a competent person to watch the pulse and breathing carefully.

10th. The abdominal respiration is of greater importance than the pulse; its suspension is the first justifiable symptom of alarm, and to it we owe the fact that we never had an accident.

11th. Anæsthesia is applicable at any age.

12th. Children come under the influence of chloroform easily and rapidly.

13th. Aged patients, in general, offer more resistance.

14th. Patients with weak intellect succumb with the same facility as children and inhale the chloroform without repugnance and with great tranquility.

15th. Pregnancy is no contra-indication to anæsthesia.

16th. In patients who are refractory to the action of chloroform, it is facilitated by giving them, about twenty minutes before inhalation, a dose of chloral, or better, a hypodermic injection of morphia.

17th. Anæsthesia may be prolonged for one hour or more by giving inhalations whenever signs of returning sensibility occur.

18th. Life is not in danger as long as the patient breathes.

19th. In ophthalmic surgery anæsthesia ought to be complete, for semi-anæsthesia, whilst depriving the patient of voluntary motion, does not abolish sensibility and is on this account more prejudicial than useful.

20th. In all operations on the eye chloroform can be used advantageously.

21st. Anæsthesia is indispensable in enucleation, certain operations for artificial pupil and iridectomy, etc.

22d. The various restrictions made in regard to anæsthesia in ophthalmic surgery, by its opponents, are exaggerated and unfounded.—*Cronica Medico Quirurgica de la Habana*, Dec., 1879.

Proceedings of Medical Societies.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

CHOREA OF THE LARYNGEAL MUSCLES. (*Chorea Laryngealis*.) By
GEORGE M. LEFFERTS, M. D., of New York.

The question may be raised with propriety, why I should regard the peculiar laryngeal manifestations in such cases as are hereafter reported as being due to chorea of the laryngeal muscles alone, and not to hysteria, as is usually done? Why depart from the beaten track of my predecessors? These questions I shall try to answer satisfactorily as I proceed. I know that many practitioners have probably met with just such instances, in which they—having made no examination with the laryngoscope, and not being in a position, therefore, to appreciate the erratic muscular movements of the laryngeal parts—have been satisfied to class them, without further question, under the head of hysteria, as the simplest and usual way of disposing of them, and hence, I may add, is probably due the fact that no instance of pure laryngeal chorea—that is, chorea of the laryngeal muscles alone, without any other manifestation of the disease, with one or two incomplete exceptions hereafter noticed—exists in the literature of the affection, while cases of so-called hysteria or

neuroses, with predominant laryngeal symptoms, abound. Again, in support of the hysterical view of the question, if I may so call it, I am bound to admit that we have excellent authority for believing that the group of symptoms called *chorea major* is not a disease *sui generis*, but only the product of, in many instances, hysteria and willful simulation, Hasse, Rosenthal, Steiner and others to the contrary notwithstanding. This still further complicates the question of correct diagnosis. Finally, it is certainly easier to take a common-place view of the question—the cause of certain laryngeal conditions, such as voice, cough, etc., being obscure, the objective symptoms hidden, because the laryngoscope is not used—to take shelter in that much abused but certainly most comforting diagnostic refuge in time of doubt, hysteria. My own views changed radically when I began to institute critical examinations of the larynx during the paroxysm in such cases as those which follow, cases beyond question free from all clinical evidence of hysteria or general manifestations of chorea, but with marked laryngeal symptoms. The next step was to attribute to a trustworthy cause the reason of the involuntary, persistent, rapid and irregular movements of the laryngeal muscles as shown by the erratic motions of the vocal cords, and heard in the peculiar laryngeal noise or cry of the patient. This I believe to have reasonably found in chorea.

I understand by the term chorea a neurosis, of which the seat may be in the brain, sometimes in the entire nervous system, characterized by incessant incoördinate twitchings of groups of muscles, and accompanied by a more or less developed psychical disturbance. These conditions, or the more important of them, were certainly present in my cases, and hysteria was not.

It will not be questioned that chorea may, and not unfrequently does, affect a single group of muscles without the involvement of the whole or even greater part of the muscular system. Bristowe tells us that the most interesting of the spasmodic affections implicating speech is chorea, and that in the disease there is generally distinct affection of speech, which in different cases may depend upon spasm of the lips, tongue, larynx or respiratory muscles, or on several or all of these factors combined. Other writers show that impairment of speech depends not alone upon the choreaic disturbance of the functions of the muscles of articulation, but may be due to chorea of the muscles

of the abdomen and glottis. On this point, then, at least, we have unquestionable proof.

But we are told also that in many cases of general chorea more or less disturbance of the phonatory apparatus is the rule, and it will also be urged the same inarticulate noises, cries and curious laryngeal sounds will often be heard in hysterical attacks. How then are we to distinguish between them? It is confessedly difficult in certain cases to be sure whether psychosis, cerebral disease, hysteria or simulation is before us. This, Ziemssen informs us, is confirmed by the published observations of many authors, but I am not aware that any effort has heretofore been made to distinguish the affections one from the other, as far as the larynx is concerned, by an inspection of that organ, to analyze the phenomena there presented, and to attribute them to the correct pathological cause. I believe that here will the key to the problem be found, and by this means alone the question be answered. The laryngoscope must make the diagnosis, assisted or not, as the case may be, by the rational symptoms—violent, incoördinate, involuntary and persistent movements of the muscular apparatus of the glottis alone, mainly of the adductor muscles, as would appear from the cases before us, demonstrable, and therefore beyond question, certainly would seem to stamp the name for the disease, which I have chosen, as correct, and serve to distinguish it from the very affection with which it is likely to be confounded, viz., hysteria. In the one case, chorea, prolonged, violent, irregular and incoördinate muscular effort, lasting, it may be, for weeks or months; in the other, hysteria, evanescent spasm of the laryngeal muscles alone.

Notwithstanding the fact that I have an opportunity of seeing in the course of each year a large amount of clinical material, and that since my attention has been called to the subject, I have looked for several years for cases similar to those which I now report, I have met with but three, though I have seen in my search many of hysteria in its various forms, as affecting the larynx, and have been called upon to differentiate various neuroses of that organ, from the cases of pure laryngeal chorea, which I sought—a fact which, in connection with those that in the literature of the subject, with the exception of a paragraph in Ziemssen's excellent article—chorea of the laryngeal muscles is passed over in silence; and that I have been able to find but one recorded example of the disease in which a laryngoscopic examination

had been made, and which was consequently reliable, would seem to indicate the rarity of the affection. The above quoted author tells us that no cases of chorea of the laryngeal muscles alone have been published; the present communication will therefore certainly supply a deficiency. My cases are as follows:

CASE I.—Some two years since a strong, well developed and healthy looking German girl æt. 16, was brought from her home in the country to my clinic at the College of Physicians and Surgeons, by her parents, with the complaint that the continual noise which she made in her throat had become so annoying as to be unbearable to all those about her, and that though the child had again and again been remonstrated with, and even punished, it remained as persistently constant as ever, only ceasing during the night when she slept. The noise complained of resembled a short, sharp, explosive bark or yelp, occurred at intervals of a few moments, was unvarying in its frequency, and monotonous. It was unaccompanied by any but the slightest muscular movements of the throat, and none of those of the mouth or face. The attack had commenced some four months previously, and had continued without intermission save at night. During this time the patient had never suffered from any of the various manifestations of hysteria, had never had "fits" of any description, nor irregular movements or twitchings of any of her muscles; on the contrary, she had always been strong and well, free from all sickness, even the ordinary ones of childhood; she had never been subjected to any sudden fright, been maltreated, nor associated with choreaic children, and has not emaciated nor lost health during the continuance of the affection.

An examination of the larynx, which was easily made, despite the frequency of the recurring paroxysms, showed that every few moments the vocal cords were absolutely driven sharply together, as Cohen puts it, as if by some great external force; after close and spasmodic approximation for a second or two, they were widely thrown apart, as if by the force of the pent up air in the trachea, which then rushed through the still contracted glottic aperture, with the peculiar explosive, barking sound which is noticed by the bystanders; the next second the muscles are fully relaxed, the vocal cords fall naturally back to the sides of the larynx, but immediately the whole process is repeated, as just described. During phonation the action of the vocal cords

is normal, and a strong effort of the will, if the patient can be made to exert it, and a long, deep and quiet inspiration controls for the moment the recurrence of the paroxysm. The laryngeal mucous membrane, with the exception of being slightly hyperæmic, presents no unusual appearance.

The patient was placed upon anti-spasmodic remedies, the trial of the local use of the Faradaic current advised, and she requested to again report herself in a short time at the clinic. This she did not do, and unfortunately the result of the treatment is unknown.

CASE II.—During the winter of 1878 I had heard several times from different patients attending the clinic at the college of the fame of a "barking girl," who had attracted, from the peculiarity of her case, very considerable attention in her immediate neighborhood. She was finally brought to us for treatment, her mother stating, as in the last case, that the continual and monotonous noise or cry made by the patient had become almost unbearable. I found her to be a well developed, muscular and robust girl of 20, with rather a vacant and silly expression of countenance, and of but apparently moderate intellectual force. Her mother could tell me of no serious sickness that she had ever undergone, and was very sure that she had never suffered from any uterine disturbance nor manifestation of hysteria. She had been working in a factory for several years, had always worked well, and been, as far as her parents knew, cheerful and happy. She lived in a good and comfortable home. The patient herself conversed freely, but in a more or less irregular, jerking and spasmodic way, about her peculiar trouble; said that the spasm in her throat was entirely beyond her control, and wished that it might be cured and she get well; that the noise which she made, and which resembled the cry of one of the lower animals, a whine or yelp, very accurately, was a great annoyance to her, especially lately, when, as she believed, it had gotten worse and louder, after lasting some three months without apparent alteration in sound or frequency of the spasms. The attacks always left her at night, when she slept quietly and rested well until morning, when they recommenced at once upon rising.

An examination with the laryngoscope showed that there was a more or less constant activity of the adductor and abductor muscles of the glottis, with great irregularity of movement. Every

few moments, the vocal cords, after a preliminary restlessness and vagueness of motion were quickly and spasmodically approximated, until they struck in quick succession, several times, one against the other, even overriding through the mere force of contact, while at the same time the arytenoids were closely pressed together; the air from below is then ejected in spurts, as it were, between the lips of the narrowed glottis, giving rise under the high pressure and physical conditions of the glottic opening, to the peculiar character of cry above noted. The intensity of the attack once passed, the glottis, after an irregular pause, opens widely, the patient inspires deeply, freely and apparently with a sense of relief, breathes quietly for a few moments, through a glottis, still with twitching movement, when the attack again recurs with precisely similar laryngoscopic appearances to those just described.

The general appearance of the laryngeal parts, condition of its mucous membrane, etc., presents nothing abnormal.

The treatment of the case, though tedious, was satisfactory. After many vicissitudes and the trial of many different drugs the case yielded to belladonna, bromide of potash and electricity. The uvula, which was much elongated, was amputated early in the treatment to remove a possible cause of reflex laryngeal irritation; the result was temporary improvement, followed by a recurrence of the symptoms, which yielded later to the above means.

CASE III.—The last case I have seen in my office within the past year, with Dr. J. H. Hunt. It came to him, as he says, from the wilds of Sullivan County, in this State. The patient was a laborer's daughter, æt. 15. In January, 1878, having been always previously well, she began to cough, and was supposed to have taken an ordinary cold, but a week or ten days later was compelled to go to bed with fever. The laryngeal trouble developed with the occurrence of the fever, and consisted apparently in spasm of the glottis. From the unsatisfactory account of her illness—surmised to have been diphtheria—it is judged probable that the larynx was involved. Her breathing was very noisy and difficult, and for several days her life was despaired of. As she regained strength the following curious conditions occurred, and are described in the Doctor's words: "If the patient attempted to use the voice, and even at times without such at-

tempt, spasm would occur as follows: There would be a cough consisting of several expiratory acts, each successive one shorter than the preceding, until all the air was expelled from the chest that was possible; then the patient would hold her breath, the veins of the face and neck would become engorged with blood, eyes suffused with tears, etc.; then she would inspire, and perhaps have rest for some time, or the phenomena might be repeated immediately, or several times in succession. Swallowing would produce the spasm. These symptoms continued for two weeks and subsided, leaving a loud, peculiar crowing sound with each inspiratory act. Expiration is free; at night the sound ceases; voice has always been good, even during her sickness. The patient is now perfectly healthy, florid and robust. Menstruation began soon after her recovery from the acute attack and has continued regularly since. There is certainly not the slightest history of any nervous or hysterical trouble of any kind. She has never had twitchings of the muscles, has lived an open out-of-door life in the backwoods away from large settlements, has worked hard, lived moderately well, and never, with the exception of the above attack and the present loud peculiar cry, recurring with each or nearly every inspiratory act, suffered from any illness."

The laryngoscopic appearances are most peculiar, in a larynx in all respects normal. Every few seconds the arytenoid cartilages are violently and spasmodically approximated, forced up closely together, when the right undergoes an irregular, sucking motion, clashing against its fellow, and passing in front of it at times. The same irregular, violent and spasmodic movements characterize the action of the vocal cords, which are contracted, then quickly relaxed and quiver, all within the space of a few seconds. The spasm passes quickly, the larynx assumes its natural configuration, but again loses it as the attack recurs, as it does with regularity and persistency. The force of the attack seems to be expended mainly upon the right side of the larynx. During each paroxysm air is drawn through the narrowed and irregular glottic aperture with force and violence, giving rise to the stridulous, high-pitched crowing sound.

Tonics, anti-spasmodics and persistent use of electricity, I am informed, effected a cure within a few weeks. There has been no recurrence.

These three cases then are the only ones of the affection that

I have had an opportunity of observing, and certainly in each of them the peculiar symptoms of the disease, both rational and physical, were well marked. A fact to be noted is, that in all three instances a young girl was the victim, strong, robust and free from all surroundings which might be supposed to develop a hysterical tendency or promote a choreaic attack of either of which affections, moreover, there had never been the slightest general symptoms noted by the observing parents.

In my search through literature for similar or corroborative cases, I have met with much difficulty in knowing which of the cases that I have met with (and of peculiar laryngeal affections, characterized by spasms of the muscles, inarticulate cries and other phenomena there is no lack) to reject and which to retain as illustrative of the class of which I am speaking, viz., cases in which the irregular choreaic movements are confined to the larynx. The diagnosis has been so loosely made in the majority of instances that I read of, so much has, rightly or wrongly, been ascribed to hysteria, and so very infrequent are the laryngoscopic examinations, that a long list of possible cases can be narrowed down to only one or two positive instances. Wheeler, for instance, tells us of a girl of 12, with the following symptoms: Shoulders fixed, head thrown back, series of barking or expiratory efforts, steady increase of their violence, finally an attack every fifteen minutes during the day, no paroxysm while sleeping, cyanosis of the face, general emaciation. Laryngoscopic examination during an attack showed the epiglottis to be standing up straight, and the vocal cords to be vibrating rapidly; nothing abnormal in the appearance of the parts was noticed; and Geissler reports at some length a peculiar case, as one of "Chorea of the Larynx." Upon this point, after reading his case carefully, I am not at all sure, and certainly think that the history does not bear out the diagnosis. Aside, then, from these two cases, I find none that bear directly upon the question.

Perhaps my efforts to establish a claim for the consideration of "Chorea of the larynx" as a separate, distinct and local affection will assist in rescuing it from the doubt and obscurity, so to speak, which now seem to involve it and render the task of its identification easier for those who may perchance follow me in my study of the affection from a clinical standpoint.

Conclusions.—1. There is an affection of the larynx, charac-

terized by violent, incoördinate, irregular, involuntary and persistent action of its muscular apparatus, which, though not frequently met with, as would appear from the few recorded instances, still occurs with sufficient frequency to demand attention.

2. The peculiar symptoms of the affection, well marked as they are, would seem to justify the selection of the name given to it, viz.: "Chorea of the Laryngeal Muscles," or "Chorea of the Glottis," bearing in mind the definition of the disease chorea as applied generally.

3. "Chorea of the Glottis" may readily be confounded with "Hysteria," when the latter includes the larynx in its manifestations. Other affections of the organ are readily differentiated.

4. The differential diagnosis may be made by the laryngoscope, by the clinical history, and the peculiar character of the laryngeal manifestation.

Chorea, affecting the laryngeal muscles, produces violent, prolonged (weeks to months), incoördinate and involuntary muscular movements.

Hysteria develops, as a rule, laryngeal spasm alone, short, often voluntary, never continued regularly through weeks or months. The character of the cry and respiration are of value.

5. Chorea, it appears, may affect the laryngeal group of muscles *alone*.

Hysteria, if the larynx be implicated, will give general manifestations.

6. The prognosis of the affection is good.

7. The treatment is often tedious and perplexing. Judging from our present data, no absolute rule can be laid down; antispasmodics occasionally work well for a time, then fail. Electricity (Faradic current) has yielded the best results. General treatment is all-important when indications exist.

DISCUSSION.

Dr. Knight, of Boston, remarked that the first case of the kind which he had seen was that of a "barking man," who was about the streets of Boston fifteen or more years ago, and whom he believed to have been a wounded soldier. The first case which he had had an opportunity of examining, and which was designated

as chorea laryngis, was in Schrötter's Clinic, in Vienna, in 1872. This case was published by Schrotter in his *Jahresbericht*.

Dr. Knight had since seen several cases, one in which there was a curious combination of a sort of sneeze and shout, the little patient exclaiming, "Hi—ya!"

Another quite unique case was seen by Dr. Knight in the practice of Dr. Wheeler, of Chelsea. The patient was a little girl 12 years of age. She emitted a sound, not abrupt like a bark, but a continuous note which lasted as long as the expiration. When her breath was exhausted she would gasp, take in a deep inspiration, and strike the same note again. This she repeated four or five times, then she would rest five minutes and begin again. Under bromide of sodium the interval was prolonged from five to ten or fifteen minutes. She was perfectly free from spasm during sleep. The larynx was examined during a paroxysm, and the cords seen to be closely approximated, and covered by a thin catarrhal secretion. No benefit was derived from belladonna or strychnia, but the paroxysms having continued with increasing frequency from Christmas to April, almost immediately ceased on the administration of large doses of quinine.

Dr. Roe, of Rochester, said: The cases reported by Dr. Leferts, in the exceedingly interesting paper which he has just read, and which he has termed Chorea Laryngealis, recalls to my mind two cases almost identical in symptoms with those referred to by him, which have occurred in my own practice.

The first one I saw about five years ago, in the person of a girl 17 years old, and followed the contracting of a severe cold from exposure. She was out for an evening entertainment. While in the building a slight fall of snow occurred, and she being without rubbers, had to walk home in it, getting her feet very wet. A cough came on of a very violent and of a very loud barking nature, very much resembling the peculiar shrill bark of some dogs, the bark being so characteristic that she was termed the "barking girl." She lived at the time in a small frame house in the outer portion of the city, and children would congregate about the house to hear her bark. The cough was intermittent in character. There would be three or four loud barks in quick succession, then intermission of from one to two minutes, then a repetition of the paroxysm. During sleep they would cease altogether, but would return instantly on waking. The violent concussion of the vocal cords produced considerable laryngeal

hyperæmia, and at one time there was the appearance of a tumor growing in the lower posterior wall of the larynx. All means of treatment failed to relieve the cough. Various local applications were made to the larynx of astringent and anodyne or sedative character. Internally the bromides in large doses were given, and various sedative cough mixtures were persistently tried, but to no avail. Galvanism was also tried with like result. The hypodermic injection of morphia and atropia over the inferior laryngeal nerve would control the cough while the effect continued.

She was seen by numerous physicians, but all failed to give her any relief, and she was given up with the supposition that it would shortly wear her out. She, however, survived it, and in about six months it began to subside and afterward entirely left her.

Case II came under my care two and a half years ago. It was in a girl 18 years old, living in Brockport. In this case the cough came on slowly without assignable cause, about two months previous to the time I saw her. The only local cause to which they could attribute the trouble was, enlargement of the right tonsil, but this had been removed without benefit resulting. The cough occurred in intermittent paroxysms, like the first, but was not as loud and the intermissions were longer—about two to four minutes. The cough resembled the bark of a small poodle dog, only lower in tone. On examination laryngoscopically there was found congestion of the arytenoid cartilages and ary-epiglottic folds, and in the middle lobe of the right lung was found emphysema, which had been produced by the expiratory pressure. Local applications of sulpho-carbolate of zinc and tr. of iodine were made to the larynx—the Faradic current was applied and internally a hydrocyanic cough mixture was given. The cough began at once to subside, and in about five days entirely ceased, and she was, when heard from last, quite well.

The first case was attributed entirely to hysteria, and the second one more or less to the same cause as the cough slightly preceded her first menstruation. In neither case was there any general nervous trouble or symptoms, nor was there any special indications that it was at all connected with any uterine trouble. They were considered, however, to be cases of spasmodic cough associated with hysteria, but if those cases reported by Dr. Leferts are genuine cases of laryngeal chorea, I am quite sure these should be included in the same category.

THE SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

The Southern Illinois Medical Association held its sixth annual meeting at Cairo, Ill., commencing on Wednesday, January 21st, and lasting two days. The place of meeting was in one of the halls of the fire department, known as Rough and Ready Hall. This hall was well furnished and it might be said to be well decorated, as it contained a large number of flags and banners that had been presented to the department as tokens of appreciation of meritorious work.

At twenty minutes past ten o'clock, Dr. C. W. Dunning, of Cairo, President of the Association, called the meeting to order.

Prayer was then offered by Rev. D. A. Bonner.

Hon. N. B. Thistlewood, Mayor of the City of Cairo, was next introduced and delivered an address of welcome to the members of the Association. He expressed his pleasure at seeing the gentlemen present, and hoped that acquaintances would be formed that would be a benefit both to the people of the city and their visitors. It had been said that Cairo was not a healthy place, but this statement he claimed was not correct. He expatiated on the growing commercial interests of the city, and concluded by hoping that the Association would have pleasant recollections of the hours spent in Cairo.

Dr. H. V. Ferrell, the Secretary, read the minutes of the last meeting, and Dr. L. Dyer, of DuQuoin, read the report of the Committee on Publication.

Dr. Ferrell, of Cartersville, moved that the ST. LOUIS MEDICAL AND SURGICAL JOURNAL be made the official organ of the Association for the year 1880, and that the Publication Committee be instructed to publish in said JOURNAL such publications and transactions as in their judgment might be worthy of publication. This motion was carried.

Dr. Stacker read the report of the Committee of Arrangements.

On motion of Dr. Dyer, visiting members of the profession were invited to take seats,

The Assistant Secretary read the report of the Treasurer, showing a handsome balance on hand.

The Board of Censors recommended that Drs. Carleton and Berger be admitted members of the Association. The report was adopted.

Volunteer papers being in order, Dr. J. H. Norris, of Metropolis, read a paper on the treatment of inflammatory rheumatism by hypodermic injections of sulphuric ether.

A report on the subject of anatomy was read by Dr. Ferrell. The same gentleman read a paper on ergot in fibrous tumors of the uterus.

AFTERNOON SESSION.

Dr. Rauch addressed the meeting in reference to the new law now in force in the State of Illinois, for the regulation of medical practice by State Boards of Health. He explained some of the beneficial results of this law; one was that about forty persons, who had been practicing medicine under assumed names, had left the State. The act gave the public the means of knowing who were duly qualified practitioners and who were not. The law provided for a complete medical registration.

Dr. Ferrell read a paper on adherent placenta, and it was briefly discussed.

Dr. S. H. Bundy, of Marion, read a paper on anæsthetics in parturition. He warmly advocated the administration of chloroform as a means of alleviating the condition of women in labor.

Dr. N. R. Gordon, of Campbell's Hill, read a paper on quinine in gestation and parturition. This was discussed at some length.

Dr. Rainey made a verbal report of a labor case he had attended. A discussion followed in regard to the effects of injections into the uterus.

In the evening a popular address was delivered by Dr. C. H. Hughes, of St. Louis, on "Aphasia, its medico-legal aspects, etc." This address was eloquently delivered and well received.

SECOND DAY.

A paper was read by Dr. McKenzie, of Chester, on the use of hot water in uterine hemorrhages. This paper was discussed by several members.

The Association proceeded to an election of officers; the ballot was dispensed with, and the following officers were elected by acclamation.

President: Dr. W. A. Gordon, of Chester.

First Vice-President: Dr. S. H. Bundy, of Marion.

Second Vice-President: Dr. J. T. Binckley, of Shawneetown.

Secretary: Dr. L. E. Stocking, of Anna.

Assistant Secretary: J. K. Berkebile, of Millstodt.

Treasurer: Dr. L. Dyer, of Du Quoin.

Dr. J. S. Dodds, of Anna, read a paper on the use of hot water in the uterus. A discussion followed.

A discussion took place in regard to the next place of meeting of the Association. The merits of Du Quoin and Shawneetown were discussed. The latter place was agreed upon.

A discussion arose in regard to a proposed amendment of the by-laws of the Association, to the effect that no member should admit a medical student to his office without his having given proof of classical attainments, and any member so offending should be suspended from membership.

An amendment was proposed to the effect that the penal clause be omitted. This was ruled out of order, the necessary notice not having been given, and the resolution failed to pass.

Dr. Binckley, of Shawneetown, reported an interesting surgical case, presenting some peculiar features.

Dr. Gebhart, of Hot Springs, read a paper on the virtues of the waters of Hot Springs. He gave the result of the analysis of the waters by distinguished chemists, and also detailed the efforts he had made in that direction. An attempt was made to explain the curative principles of these waters, and suggestions were made as to the class of cases in which they would probably be of service. The speaker exhibited rocks that had been found in the waters of the springs. He also presented, on behalf of Messrs. Shea & Garratt, of Hot Springs, a handsome diamond, to be worn by the President of the Association during his term of office, and then to be turned over to his successor.

Dr. G. J. Engelman, of St. Louis, read a paper on post partum hemorrhage.

Papers were also read by Drs. Marshal and Binckley.

In the evening Dr. W. Dickinson, of St. Louis, delivered a popular lecture on the human eye in health and disease. The lecture was illustrated by a large model of the human eye which

was capable of being taken apart, so as to give the audience a clear conception of the formation of the organ of sight.

The JOURNAL, its Editor and its Stenographic Reporter, Mr. J. Brown, were well received, and the latter two were handsomely entertained.

The Association adjourned to meet at Shawneetown, Ill., on the third Monday in June next.

WORDS OF ENCOURAGEMENT. By P. S. WEIDMAN, M. D., of Marine, Ill.

To maintain the Madison County Medical Society in the high position it now occupies, we should conduct our meetings so as to make them practically beneficial to every attendant. Petty jealousies, partiality and favoritism should not be known among us. Let us strive to impart knowledge to each other by relating new facts of common occurrence gathered from our practice. It is in this way that our profession will continue to make advancement towards perfection. We can, in a great measure, accomplish this by reporting cases in our own every-day practice—not by stating the views of an author. Our own experience in the treatment of disease, and our errors and blunders, should they occur, during our efforts to do good, are fully as instructive as our greatest successes. The failures of the thoughtful, studious physician are always as instructive as his successful efforts. It is the ignorant alone who do not make blunders; they are either too blind to see them, or they are not honest enough to report them; we hear of them through accident, and not through the Society.

It is frequently noticeable in our medical societies, as is so often seen in many of our medical journals, that the want of study is plainly and painfully observable. Again, it is very frequently a difficult matter to sift the true from the false, the practical fact from the theoretical views. This ought not to be so. One of the objects of our meetings is to encourage us in the thorough study of our profession. Every subject that is brought before us should be thoroughly discussed, and great care should be taken that no wrong impressions be left on the mind of any person present.

If at each of our meetings we can add but a mite to our stock of knowledge, in the near future these mites will, by indicating new truths that will in turn overthrow erroneous doctrines, become the foundation of governing facts. It is in this way that we will help to make the practice of medicine approach more nearly to a scientific basis.

ST. LOUIS MEDICAL SOCIETY.

SATURDAY, JANUARY 17, 1880.

Illuminating Lamp.

DR. WM. PORTER exhibited a lamp for office examinations (Fig. 6), and said: I have often been at a loss when inquired of as to a suitable artificial illuminating apparatus for laryngoscopic work. The requirements of most physicians are: good light, simplicity of construction, cheap first cost, and for the country practitioner, it must be independent of gas. This brilliant light is from a lamp with a horizontal reservoir which is supported by a small hook in the wall. If several hooks are placed at different heights, the lamp may be raised or lowered at pleasure. The burner is constructed so as to give a very wide flame, and turns

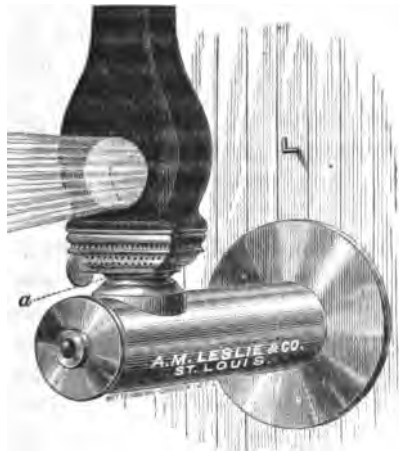
**Porter's Laryngoscopic Lamp.**

Fig. 6.

easily where it is joined to the reservoir at *a*, so that the greatest amount of light may be thrown in any direction, right, left, or direct. The chimney is of heavy glass, coated with silver, except the bull's-eye corresponding to the widest part of the flame. The silver, backed with varnish and baked, is unaffected by heat. The chimney thus forms back of the flame a convex reflector, while in front it is concavo-convex. I have had this on trial in,

my office during the past month, and found that with common oil, the light is all that could be desired—better than that from many of the more expensive instruments. The lamp complete can be obtained from Messrs. A. M. Leslie & Co., of this city.

Meningocele.

DR. J. P. KINGSLEY introduced to the Society a little child, and said: Mr. President, I have a case to present this evening of rather more than usual interest in consequence of its comparative rarity. The little patient before you was brought to my clinic at St. John's Hospital a short time since for the purpose of having a proboscis or second nose removed, the mother believing it to be such. She stated, on presenting herself, that a short time before her confinement, for the first time in her life, she saw an elephant, and that she believed the protrusion was due to the impression made upon her mind at the time. In addition to this tumor, the eye on the right side is rudimentary, it being not more than one-fourth the normal size. Otherwise the child, which is now four months old, is normal, healthy and well nourished.

The case, in reality, is one of meningocele, which is a congenital affection. The site of the tumor is directly over the site of the nasal bones, which are not present in this case; in fact there is always an opening through the bones at the point of protrusion of either meningocele or encephalocele. The tumor is in the median line, and almost an inch in diameter. It has been increasing slowly since its birth. At birth it was probably a half an inch in diameter. It consists of the membranes covering the brain, and a fluid contents, as is evidenced by its fluctuation, transparency, distension on crying, and the facility with which it can be reduced. These facts also evidence its connection with the brain. The effusion, however, is entirely outside the brain, being between the brain and its coverings. The most common site for these tumors is at the occiput, behind the foramen magnum, and at the junction of the frontal and nasal bones, as in the present instance.

These tumors vary in size, from the size of a pea to that of a child's head. Sometimes these tumors are partly filled with the membranes of the brain, which become hypertrophied after their protrusion. Sometimes, also, there is a partial protrusion of brain substance.

Genuine encephalocele consists of a hernial sack filled with brain substance. Such tumors, however, are not apt to increase in size. They arise probably from a pressure of fluid in the ventricles, forcing the brain out through the unossified parts of the cranium. Whether in these cases ossification has been prevented by the pressure from within, or whether the tumor is a result of an arrest of development, has been a question between authors. I am inclined to the opinion that there is, from some cause yet unknown, an arrest of development.

The diagnosis is of importance in these tumors, in consequence of the liability to mistake them for nevus, sebaceous and other tumors. Serious mistakes have been made, which have resulted fatally. Hewitt gives an account of an operation performed by Tatem, in which a portion of the protruding brain was removed; the patient, however, made a favorable recovery.

In making a diagnosis it is necessary to ascertain whether the tumor is fixed or not, what the effects on pressure are, whether there is an opening through the cranium or not.

The rule in relation to congenital tumors is not to attempt an operation until you are perfectly satisfied that they are in no degree deducible that pressure produces no head symptoms, and that their bases are free from the bones of the skull.

DR. J. S. MOORE said that about thirty years ago he attended a lady whose boy was born with a tumor on the back of his head; it apparently consisted of a portion of the brain and its coverings. There was an absence of bone. The tumor continued to grow until the child was about a year old. In consultation with Dr. Barbour, of this city, who died of cholera in 1849, it was determined to remove the tumor. A ligature was tied around it and it sloughed off. The disease was accompanied with strabismus. The patient recovered and is living in this city at the present time. The young man is considered semi-idiotic, and it is supposed that the tumor contained a portion of his brain. The brain symptoms were so severe that it was thought he would die if the operation was not performed. As a dernier resort the ligature was tied around it and it sloughed off.

DR. F. J. LUTZ said—In this connection, I will briefly make mention of a case which came under my observation last summer. The patient was a well built, young man, of medium height, about 23 years of age, whom I treated for some other

trouble and in whom I noticed a tumor, the size of a walnut, situated over the outer corner of the right eyebrow. I learned from him that it was congenital and gave him no trouble. The tumor was elastic to the touch; around its base could be distinctly felt the edge of the absent frontal bone; pressure upon the tumor and certain positions of the patient, seemed to empty its contents into the cranial cavity. For these reasons I considered it a hernia of the meninges.

Let me ask Dr. Kingsley what course he intends to pursue in his case. To-day I operated on an infant three days old, who had a bifid spine. The cleft is in the eleventh and twelfth dorsal vertebra. The sac was ready to slough and I simply laid it open and dressed the wound antiseptically, but I doubt a favorable issue. A similar relation exists between the parts involved in the case presented, and apparently the indications for action are quite as urgent.

DR. KINGSLEY—It is certainly very true that there is a relation between the brain and the cranium, as there is a relation between the cord and the spinal column, precisely the same. It might be of advantage to evacuate the fluid, for it is certainly a great deformity. There is sometimes some difficulty of diagnosis; not unfrequently such cases have been operated on when the nature of the symptoms had been mistaken. It happens sometimes that these tumors contain a portion of the brain. In some cases recorded, the membrane is hypertrophied.

DR. T. F. PRÆWITT—I would say these cases are very rare. Any operation is more than likely to be followed by meningitis, as you have to deal with the lining membrane of the sac. As Dr. Kingsley says, there is sometimes a layer of brain matter in the tumor. In regard to the case to which Dr. Lutz refers, I would say that in all probability it was not an encephalocele, but a congenital sebaceous cyst—one of those sebaceous cysts where the bone has been corroded or never developed—that is a point in doubt. That is usually the site of these cases of congenital sebaceous cysts. They increase with the growth of the child, but any encephalocele in such a position would be exceedingly rare. Encephalocele occurs almost invariably at the normal opening of the skull from the root of the nose, the occipital protuberance, or the anterior fontanel. Sometimes they have been found at the base of the brain. I think Dr. Pollak reports a case where a

long pendulous tumor was found in the mouth. He cut it out, and the child died. Where there is a tumor about the orbit that can be pushed in that way, it is more than likely to be a congenital sebaceous cyst. This is not the site of an encephalocele. It would be something unique to find an encephalocele there, and the fact that the man has lived to adult life is against it, as they are likely to die. Occasionally they are not very marked, not very prominent, and consequently closed up. The best treatment is to trust to a support. If they can be pressed in without producing unpleasant symptoms, that might be advisable, although it would not be prudent if cerebral symptoms were developed. All that can be done is to mould the support over the tumor to prevent further extension, but not to press it back upon the brain. It is sometimes asserted that there is evidence of want of development in these cases. Dr. Kingsley has not examined the eye. It is only a rudimentary eye, and there is probably other evidence of want of development in the child. When it grows older it will probably manifest a want of cerebral development as well. Operations have been sometimes successfully performed in a few cases, but this is exceptional. I doubt if any operation would succeed in this case.

DR. F. J. LUTZ — The reasons which lead me to differentiate the case which I have briefly stated are these: The contents of the sebaceous cyst are liquid; the tumor presents that peculiar roundness and elasticity which is characteristic of all the cysts; and it is probable that a case of congenital cyst (sebaceous) would have opened if twenty-two or twenty-three years had elapsed. In all likelihood changes would have occurred in the contents of the cyst which would have reduced it in the course of time. On the other hand, this cyst had been under observation of the man as long as he can remember, and no appreciable change has occurred. It could be emptied, which could not be done in a sebaceous cyst in that locality; you can flatten it, but cannot empty it. In this case I could distinctly empty the contents and feel the tumor. Then, again, there was the fact that this cyst changes its size; that it became larger and smaller, dependent upon the different positions which the patient took. If I asked him to hang his head over the bedside, the tumor became smaller, which a sebaceous cyst would not have done. Of course if I had thought it was a sebaceous cyst, I would have proposed an opera-

tion, and no doubt the man would have consented. He had consulted several physicians, and they were averse to it. The patient was comfortable; there was no defect of vision; there could really be nothing done for him. I did look up the literature on this subject, and was, of course, much in doubt as to the diagnosis.

DR. PREWITT—In relation to Dr. Lutz's position, even if it was a sebaceous cyst and extended through the bones of the skull, it would lie in contact with the meninges and would move with them, and would be influenced by the position of the head. These tumors, in the very position he refers to, have been found within the cavity of the skull. This is the usual position where they are found, and perhaps nine times out of ten a tumor in that position will be a congenital sebaceous cyst, with absence of bony tissue. It would be unusual to find an encephalocele in that position. It would not be advisable to attempt an operation; you would excite meningitis and kill the patient. It should not be touched unless there is some urgent reason for it, unless it was interfering with the brain. As to the probability of its being ruptured, that can hardly be the case. We have seen these sebaceous cysts last for years without ulceration. I am still inclined to think it is a sebaceous cyst. I think the Doctor could have demonstrated the matter safely by the use of the aspirator. If he found cerebral spinal fluid it would have determined the question; until this is done I should not be disposed to admit that it is an encephalocele.

Neurectomy and Nerve Stretching.

DR. PREWITT—During the month of December a lady came to me from the interior of the State, who had been a victim of neuralgia for many years. The suffering was limited almost to the infra-orbital nerve and the superior dental nerve. Her health was much impaired; an attempt to bite anything would cause intense agony; she had all her teeth drawn to relieve her toothache, but it was of no avail. I advised resection of the infra-orbital nerve. I operated about the 9th of the month. An incision was made over the infra-orbital foramen. The contents of the orbit were then lifted up without raising the periosteum, with an ordinary spatula. I followed the track of the nerve, made an incision through the periosteum, passed a little hook under

the nerve and lifted it up. I injured the artery, which annoyed me very much, because the day was dark and I did not have good light. I had to light the gas and use a reflector to detect the artery and check the hemorrhage. The connective tissue was laden with fat. I had nothing but a pocket speculum, and the fatty tissue would roll around it and obscure the view of the nerve. Some years ago I reported a similar case, but in that instance I lifted up the periosteum from the bone, raising the contents of the orbit and the periosteum, making a firm membrane that served to prevent the difficulty I had in this case. The first operation was in accordance with the suggestion of Wagner, of Germany. He advised the operation in that way and suggested an instrument for keeping up the contents of the orbit. It is a spatula with the concave surface downward. It serves as an elevator and reflector at the same time. The little hooks on it are also suggested by Wagner. The hooks turned in different directions, for the convenience of the two sides.

The first case I operated on was some ten years ago, I think. This patient had also suffered from neuralgia for about fifteen years. The infra-orbital nerve and the superior orbital nerve and their branches were involved. He has had no neuralgia in the infra-orbital nerve, but in the other branches of the nerve; but he has not suffered to any such extent as before. At that time he was most fearfully afflicted with neuralgia; his arms were tattooed with a syringe he had been using; he had one of his own, and there were abscesses over his arms and breast on account of the punctures he had made. I think the bad results following the use of the hypodermic syringe are due to bad management of the instrument and to the fact that the solution is kept.

DR. JOHNSTON — Sir Astley Cooper cut the nerves for curing neuralgia. That great surgeon was convinced this practice was not followed by success. And those who have read Sir Astley Cooper's works will find his statements on this subject. It has now become a doctrine that a disease can start from a local point of irritation, and that a change of nutrition ultimately affects the whole organism. It is a practice among surgeons to excise the nerves that manifest a local irritation. The next question that comes up to the thinking mind is, what causes this irritation? We, Mr. President, in the Mississippi Valley are in the habit of saying it is malaria, change of temperature, change of humidity;

there is something developed, it is absorbed by the system, and those who have read Radcliff on neuralgia will find he contends there is a depleted condition of the system dependent on influences that derange the nutrition and affect the nervous system. Now, if that be true, that neuralgia depends upon external influences, we must get at the true inwardness of the pathology of the nerve neurosis we call neuralgia; we must determine whether it depends on local irritation; whether it will cease on a particular part of the nerve becoming severed. If, on the other hand, it be true that neuralgia is a local disease of the nervous system, then surgeons are justified in excising the nerve that is affected. I believe neuralgia depends upon some external cause, on something we have inhaled from the atmosphere or swallowed into our stomachs, and a want of proper nutrition of the system.

DR. LUTZ— I do not wish to champion neurotomy or nerve-stretching, but Dr. Johnston is too philosophical if he maintains that we ought not to do anything in medicine or surgery for which we cannot give the exact explanation. If we were to wait until we determined the true inwardness of things, our patients would very often grow tired of waiting for relief. As to nerve-stretching, I believe that I had the honor of being the first to perform it in St. Louis for sciatica. For three days there was no pain, but on the fourth it returned, and the man is still a sufferer. It has been found that nerve stretching has brought about relief from neuralgia, but how the change is brought about is not distinctly explained. Certain it is, cases have been benefitted, and we must give our patients the benefit of what may possibly do good.

DR. A. C. BERNAYS reported a case of nerve-stretching for sciatica. The patient was a coal miner. He was exposed to changes of temperature, to inclemencies of the weather, and caught cold. There was no hereditary taint in the case to account for the sciatica; nothing but exposure. He was a strong, heavy, healthy man in every respect. His mental qualities were exceedingly bright; he was a man, however, easily excited, and was a perfect tyrant at home, as I heard from his relatives. He would fly up at most anything, and exhibit symptoms bordering on insanity. His was sciatica of the very worst description; it extended from the origin of the sciatic nerve down to the external malleolus. There were three points that were especially

painful. He had been treated before he came to me by other physicians; had been taking quinine in enormous doses. I gave him as much as sixty grains in one dose. Dr. Hughes advised me to give him forty grains twice a day. I gave him eighty grains of quinine, forty in the morning and forty in the evening, twelve hours apart. It had no effect on the disease, and I discontinued it. He had been taking arsenic also. I used the galvanic current with advantage, giving him two sessions a day. At first I only gave him three a week, but I gradually increased the number. This treatment was followed by considerable benefit; he could sleep two or three hours at night, whereas he had not slept three hours in succession for a long time before. I did not succeed in relieving him entirely, however. When I stopped using the galvanic current (he would be away a week or two sometimes) he would have his pain as bad as ever, and I concluded to perform stretching of the sciatic nerve. I made an incision four inches long, beginning about an inch and a half above the fold formed by the gluteus maximus. The man being fat, it made a formidable looking cut. The nerve was easily found in the bottom of the wound. I caught it with my index finger, and pulled upon it from the center to the periphery as hard as I could pull, the force representing about seventy-five pounds. Then I pulled the sciatic nerve the other way. The immediate effect was, that the limb was paralyzed for at least three hours. I borrowed Dr. Hughes' æsthesiometer to try if he could feel the points of the instrument. The limb was anæsthetic for at least three hours; gradually sensibility returned; about 8 or 9 o'clock in the evening he could move the limb just as he pleased. He had no pain that night. Next day there was a genuine neuritic inflammation of the nerve sheaths, and that caused him excruciating pain, as bad as the pain of the sciatica. That lasted eight or nine hours, and then gradually subsided. The treatment of the peri-neuritis consisted of hypodermic injections of morphine. The wound healed kindly. I dismissed him, and he left the city about one month after the operation. He could sleep at night.

DR. LUTZ — Was the pain absent all that month?

DR. BERNAYS — Not during the time he had inflammation of the nerve. He left the city, and I have since learned that he landed in an insane asylum.

DR. LUTZ — You do not know, then, that he was benefitted?

DR. BERNAYS—I know positively he was free from pain to my certain knowledge, for about ten days before he left the city; he was then without pain. He went down to another part of the State, and I cannot tell what happened there. I think the case can be put down as a success. I think the pain came back, and the insanity is based upon the return of the disease, to a certain extent. I wish to say it is a mooted question whether stretching of the nerve is as efficient as excision. Nussbaum claims that excision ought not to be performed, because after excision there is always a return of the pain.

DR. C. H. HUGHES—I believe that nerves ought to be stretched with great caution. I should certainly hesitate to apply a force of sixty or seventy pounds to even a sciatic nerve. Now, it is well known that the peripheral irritation, long continued, gives rise to morbid conditions in the nerve centers, which persist after the excision of the nerve, or after the stretching process. This is the only manner in which persistence of pain after exsection in the course of the nerve can be accounted for. It is the only manner in which you can account for the persistence of the morbid sensation in an amputated limb or nerve. Nothing is more common than for a man who has lost his leg to complain of sensations in his toe or sensations in the stump, and the only explanation I have heard at all satisfactory, is that the morbid condition set up at the origin of the nerve persists after the cutting off of the nerve in its course. What I rise to state is that it is possible, by reason of the changes produced by the peripheral irritation in the nerve-stretching, for sensation to exist at the peripheral extremity of the nerve. It is also true that irritation in the periphery may give rise to the most serious consequences in the central nervous system, while nothing is more common than for epilepsy to be peripheral in its origin, rather than central.

Some gentlemen have gone so far as to state (though I don't concur in the statement), that there is more insanity out of the brain than in it. A gentleman in New York, the other day, reporting on the condition of one of the insane asylums there, came to the conclusion that people were not insane in their heads at all, but insane in their genital organs, insane in their liver, and elsewhere. It is a fact, as old as the history of medicine, that irritation in the liver is capable of giving rise to a deranged condition of the brain; we can go back to the time of Hippocrates.

in support of this view. Hepatic trouble may give rise to melancholia, and it is not necessary for Dr. Bernays to invoke any other cause than the possible peripheral irritation for mental troubles. Precedent is all right sometimes. For my part I should hesitate a long time before stretching a man's sciatic nerve for neuralgia, to the extent of sixty pounds. I should expect such a process to obliterate all the vitality in that nerve or bring about a peri-neuritis that would result in the destruction of the nerve, or give rise to some dire consequence.

DR. BORCK inquired what amount of force put on the nerve would produce beneficial results. It was the practice of Prof. v. Nussbaum to raise the limb by pulling on the nerve, that is, the number of pounds required to raise it, had the desired effect on the nerve.

DR. BERNAYS said as to the amount of pulling, he thought that he had not pulled enough; the next time he would do considerably more. He believed that the operation never failed.

DR. HUGHES said in regard to the case reported by Dr. Bernays, he did not wish to leave the impression that the insanity resulted from the operation, though he would not be surprised at such a result, were that the only factor; but there was another important factor, the malarial influence to which the patient was subject and his antecedent history. It would be unfair for him to draw the conclusion that the operation drove the man to insanity.

Book Reviews.

A SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M. D., F. R. S. With numerous additions and illustrations by HENRY HARTSHORNE, A. M., M. D. In three volumes. Vol. II. Diseases of the Respiratory and Circulatory Systems; pp. 923; large 8vo. For sale by Jas. H. Chambers, publisher, 305 Locust street, St. Louis. [Philadelphia: Henry C. Lea, 1880.]

We have just received the second volume of this most excellent work. This volume is devoted to the diseases of the respiratory and circulatory system. Dr. Morell Mackenzie occupies forty-five of its pages on diseases of the larynx. He treats of acute and chronic laryngitis, morbid growths, neuroses, primary and secondary diseases and laryngeal phthisis, ending with several pages on the use of the laryngoscope.

Wm. Squire, L. R. C. P., London, occupies thirty-four pages on croup.

Diseases of the thoracic organs are treated by Sir Wm. Jenner and Dr. Hyde Salter.

Dr. J. Hughes Bennett occupies thirty-six pages on phthisis pulmonalis.

Dr. Wilson Fox occupies 116 pages with pneumonia.

In this way all the diseases of the respiratory and circulatory organs are treated at length by the very best of writers, those well known to the profession. There are twenty-two contributors to this volume, making it, in every respect, one of the best works on this subject in the English language.

A Dictionary of the German Terms used in medicine. By George R. Cutter, M. D.; pp. 304; large 16mo. [New York: G. P. Putnam's Sons, 182 Fifth avenue.]

The Transactions of the American Medical Association. Instituted 1847. Vol. XXX, pp. 1028, 8 vo. [Philadelphia: Printed for the Association. 1879.]

Minor Gynæcological Operations and Appliances for the Use of Students. By J. Halliday Croom, M. B., M. R. C. P. E., F. R. C. S. E. [Edinburgh: E. & S. Livingstone, 57 South Bridge. 1879.]

The Theory and Practice of Medicine. By Frederick T. Roberts, M. D., B. Sc., F. R. C. P. With illustrations. Third American, from the fourth London edition; pp. 1041, 8 vo. [Philadelphia: Lindsay & Blakiston. 1880.]

For sale by the Hildreth Publishing Co., St. Louis, Mo.

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Original Contributions.

ARTICLE V.

THE MASTOID REGION AND ITS DISEASES, WITH ILLUSTRATIVE CASES.¹ By LAURENCE TURNBULL, M. D., Aural Surgeon to Jefferson Medical College Hospital, Philadelphia.

Any one who has examined a large number of specimens of the human crania, will be struck with the variety of forms of the mastoid process and cells; rarely in the processes of the same individual are they alike. Hyrtl² in an examination of six hundred skulls, only found three in which the occipital bone helped to form the mastoid cells. I have frequently found in old persons an almost complete want of the larger cells and in a few instances, I have found scarcely any cells at all.

The cavity which develops into the mastoid or air cells in recently born children, as a rule, is of considerable size, to which rule, however, there are numerous exceptions. In shape the cavity is a pyramid, one of whose surfaces is directed upwards and is formed by the roof of the tympanum. According to

1. Read by title in the Section of Otology, Congrès Périodique des Sciences Médicales, 6th Session, Amsterdam, September, 1879.

2. Wiener Med. Wochenschrift, 1860.

Schwartz³ the cavity is 8 mm. long, 7 mm. high, and it gradually increases in size and changes in form, becoming larger at one end than at the other.

Dr. Hartmann⁴ has called attention to the fact that in twenty-one sections of the temporal bone in children he found the average thickness of the bony walls between the antrum and the posterior fossa of the cranium to be 4 mm., while in twelve temporal bones of children at the age of 1 to 5 years, the antrum was separated from the posterior fossa of the cranium by a bony wall that averaged but 2 mm. in thickness, and in five cases by a bony lamella that was scarcely 1 mm. thick. From his opinion of these measurements he has expressed himself, as regards the origin of the cells: "Since the cavity is again found smaller in later years, this can only happen by a narrowing from the sides, that is to say by an encroachment of the partition walls of the cells."

Pathology.—In very young children the inflammatory process spreads from the tympanum to the antrum petrosum much more quickly than at a later period. There are numerous cases in which symptoms of meningitis arise in a recently born child a few days after the appearance of an "otitis media purulenta." I have found that if the discharge "otorrhœa" is free and not checked, symptoms of meningitis all disappear, but if it is small in quantity and thin and bloody, or if it is suddenly checked it almost always results in the death of the child. If the child is older there is less danger of cerebral affection, as the intelligent child is able to describe symptoms and the ear is treated promptly. In the infant there is nothing to guide us but the cry or the evidence of pain upon pressure behind the ear.

The second stage, i. e., propagation of the extra secretion, particularly when partly obstructed. These forms in scrufulous, tuberculous and syphilitic children, also in very violent purulent inflammation of the middle ear, are the result of scarlet fever; the large collections of secretion make their way along the mastoideo-squamous suture, forming an abscess behind and beneath the auricle, which either opens spontaneously or is increased in size and the bone is necrosed, as in the following case:

3. Ueber die Künstliche Eröffnung des Warzenfortsatzes, *Archiv für Opienkeep* Band, vii.

4. Ueber die Perforation des Wartenfortsatzes; *Langenbeck's Archiv*. Bd. xxi.

CASE I.—A. H., æt. 2½ years, a fully developed child of a healthy, strong mother, but the father is in the second stage of tuberculous phthisis. The child has had a purulent otorrhœa for two years. There appeared a large abscess behind the ear which for a time was poulticed, until it opened spontaneously. After some months the inflammation subsided and a loosened sequestrum of bone was removed by enlarging the opening. The child to all appearances got well. About twelve months afterwards a second abscess formed in the same locality and caused the involvement of a larger quantity of bone. The head was drawn down toward the neck on the same side, and the upper part of the neck became swollen as if the spinal column was involved. The bone, in the second attack, did not come to the surface, nor did the inflammation disappear, but gradually the bone was broken down and a large amount of it was removed by discharge of small particles. Tonics, cod liver oil, iron and sea air were employed to expedite the slow cure.

CASE II.—Henry H., æt. 5 years. A pale, delicate, scrofulous boy was brought to the clinic of Howard Hospital with a large post aural opening, discharging pus. There were found numerous sinuses with rough denuded bone underneath, but no loosening or detachment of bone, nor was any part movable by the probe or forceps. He was directed to use an antiseptic wash to the openings. A few days afterwards the discharge had ceased, the temperature had arisen to 102°, the pulse could not be counted and convulsions and death soon followed.

In this case there was no doubt in my mind that the cerebrum was affected, for there was present persistent pain in the head, vomiting, strabismus and convulsions of one side.

CASE III.—Mary E. C., æt. 15 years. Her mother, of decided tuberculous tendency, her father is healthy. The girl has suffered from otitis media purulenta of two years, following a cold, and this had gradually improved, with some loss of hearing. She has been at times affected with distressing vertigo, so that if she had not taken hold of some support she would have fallen. She is deaf in the left ear, a rim of the membrana tympani remaining. She gradually became unable to leave her bed; she lay with her head bent forward on her chest, any movement giving her pain and increasing her vertigo. There have been two or three

slight convulsive movements and internal strabismus was present. When the tongue is protruded there is a tendency to the left side. She gradually passed into a state of coma and died.

Without going into the minute details of the post mortem, it is sufficient to say that there was no abscess or disease of the cerebrum. The cerebellum was softened and on it there was an abscess containing about two ounces of pus.

These three illustrative cases bear out the facts first announced by Toynbee, that up to the second or third year of life the cerebrum is most frequently affected, corresponding to the anatomical relations, while affections of the cerebellum and the transverse sinuses appear only at a later age.

Our old method was the removal of the sequestra of bone with the knife, probe, elevator and forceps. A new method has been proposed, called the "Volkmann," in which a small, delicate, sharp, spoon-like knife or gouge is employed. I have had such an instrument made and have operated in only one case with it, as yet. The result in this case was a success.

Schede, Schwartze and Hartmann⁵ have treated a large number of cases with good results, and the following is Dr. Hartman's method of operating:

"An incision is to be made in at the insertion of the auricle and in such a way that the middle of the incision lies just below the level of the opening of the external auditory meatus. If a fistula is present the incision either passes through the fistulous opening, or is to be united with it by a diagonal incision. In making the incision through the soft parts we must take care not to cut forward, since the surface of the mastoid process passes over into the posterior wall of the auditory meatus, without any sharply defined boundaries, and by passing forward we run the risk of only loosening the posterior wall of the external auditory meatus, and from here reaching the membrana tympani. This rule seems of importance, and should be especially observed where the soft parts are greatly infiltrated. The incision should not be too small, but fully 2 to 3 cm. in length. The edges of the wound should be held apart with sharp hooks, so that after the bleeding has ceased the field of operation can be thoroughly examined.

5. On the formation of sequestra in the mastoid process of the child, by Dr. Arthur Hartmann, of Berlin. Translated by Dr. James A. Spalding, Arch. Otology, vol. viii, No. 1, New York, 1879.

"In all the cases in which I have operated either a fistula was already present or after the soft parts were cut through there was an opening in the bone which could be enlarged with the sharp spoon. In one case only did I have to employ the chisel in order to enlarge the small opening. The granulations lying in front are to be removed with the sharp spoon. If the antrum is opened and laid bare in this way it can be examined most carefully with the probe or with the tip of the finger introduced. If loosened sequestra are present they can be seized with pincers or forceps and extracted, or as proves most suitable, may be pried out with the spoon. The sharp spoon also offers the best services in removing the bone that has become softened by caries. The precautionary measure suggested by Schede, to use the sharp spoon only when the bone is found to be softened to a certain degree, is not to be neglected.

"In my operations I have followed the maxim of confining myself in the removal of the morbid parts to what was most needed—i. e., chiefly the removal of the granulations and the extraction of such sequestra as were fully loosened and could easily be reached. It seems then necessary in the after treatment to keep the wound open by a thick drainage tube, so that in the subsequent days we may have a full view into the depths of the wound, from which now the sequestra gradually loosening themselves may be detached with the probe and removed. It seems also desirable in the latter stage (as has been emphasized especially by Schwartze and v. Tröltsch) to keep the aperture open as long as possible by means of a leaden nail or a short leaden tube, until we are sure that the mastoid process is in a sound condition. The important point in the after treatment is the regular removal of the accumulated secretion, for which purpose we prefer syringing at first with antiseptic, later with neutral, and lastly with astringent fluids."

Mastoid in the Adult.—⁶In the adult the antrum is large enough to admit a small-sized pea. There are small veins through the upper portion of the process which form a medium of communication between the lateral sinus or its branch, the superior petrosal sinus, and the veins on the outside of the cra-

6. Transactions of the Medical Society of the State of Pennsylvania, vol. XII, part I; Dis. of Mastoid Process, with cases, by Laurence Turnbull, M. D., Ph. G.

nium. By this communication and close relation to the brain, if pus be formed and cannot find another outlet, death is apt to follow by pyæmic inflammation of the cerebrum or cerebellum. Disease of the mastoid process is divisible into the following forms: 1st, Inflammation of the external periosteum. 2d. Acute inflammation of the lining mucous membrane, followed by filling up of cells with a reddish, pulpy material, by accumulation of pus and with caries. 3d, Chronic sub-acute inflammation of the mucous membrane with sclerosis or hyperostosis. 4th, Periosteitis, independent of involvement of the mastoid cells.

Inflammation of the External Periosteum.—In the course of an otitis media diffusa, with or without discharge, the mastoid region begins to swell, becomes red, and very painful on pressure. If these symptoms occur in a healthy individual, the mastoid cells are rarely involved. When this same swelling takes place in a tuberculous, scrofulous or feeble adult, the prognosis is not favorable. In the first class of cases permanent relief is given by free depletion, or by an incision with a strong scalpel down through the periosteum to the bone. In the second class the disease almost always involves the deeper cells of the bone, which, becoming filled with pus, produce caries or necrosis. In children such diseased bone must be removed when suppuration brings the sequestrum to the surface, while in the adult an important operation has to be performed—i. e., perforation of the bone for the relief of the patient. The second class, or simple congestion of the mucous membrane of the mastoid cells, which we often see in its slightest form in acute inflammation of the middle ear, is most frequently the result of cold, and is to be relieved by cleansing the parts, and by local depletion by leeches, etc. Still, in its most aggravated form, nothing but an operation will relieve it.

CASE IV.—*Illustrating Inflammation of External Periosteum, with Sudden Stoppage of Discharge.*—Disease of mastoid process, with discharge from external meatus; recovery. Martin F., æt. 7 years, a large and robust boy, but of tuberculous family (father and four uncles having died of phthisis), was convalescent from scarlet fever, and was discharged well on March 15. Ten days later I was called in haste to see the boy. There was great pain and swelling behind the ear, over the mastoid process, but no dis-

charge from external meatus. He was freely leeches, and purgatives were administered, and followed by anodynes to relieve the pain. On the next day the swelling was on the increase, and had extended to the face and eyes, with fever and symptoms of convulsions. It was then proposed to cut down to the bone, dividing the periosteum, as the only means of relief, to which proposal the mother consented. An incision was made about an inch long behind the ear, and as nearly as possible parallel with the concha, which at this time stood almost horizontal. A profuse gush of blood followed, mixed with which was imperfectly formed pus. The wound bled and oozed for three days. The pain was much relieved, and by the use of bromide of potassium and with sulphate of morphia, he was able to sleep, which he had not done for two days. A poultice was applied on the third night, and by the fourth, pus flowed freely. This was encouraged, and by the end of the sixth week the wound was disposed to close; but this was prevented, and the discharge continued for four weeks longer, when the wound was allowed to close, as the roughness of the bone had disappeared.

Report several years afterwards: The young man is now 20 years of age, has enjoyed good health since, being able to be out in all weather; is bright and intelligent, and is at work in a cotton mill. His hearing in his left ear is gone; right very good. Over the mastoid cells of the left side there is a depression of a bluish color from loss of bone. Has never had a severe attack since, excepting now and then a slight discharge from the left ear. He has since lost his mother by phthisis.

CASE V.—*Of the Same Nature, which was not Treated.* James R., æt. 5 years, in 1862 had a similar swelling after an attack of scarlet fever; it opened of itself after long poulticing, and continued to discharge from the back of the ear for twelve months; it then ceased, leaving a deep depression behind the ear, with loss of hearing; the boy is imbecile and cannot articulate.

CASE VI.—*Disease of the Mastoid Process; Perforation of the Membrana Tympani; Recovery.* Mrs. A., æt. 35 years, whose case was of the same character as the one just reported, was treated in a similar manner with equally good results.

CASE VII.—*Abscesses over the Mastoid Process in Mother and Child; similarly treated and both recovered.*

March 25, Thomas N., æt. 5 years, applied at the Howard Hospital with an abscess over the mastoid process. He is convalescing from an attack of measles. The swelling back of the ear commenced three weeks previously, then subsided, and again began to swell. On examination, there was, besides the swelling, redness and slight fluctuation. There was no discharge from the ear. On informing the mother what was to be done, she replied: "Well, do what you think is right, as you performed the same operation upon my ear, when this child was only ten months old. I was at that time three months under your care and was cured and remain so." I examined the back of her ear and found a deep depression, where there had been loss of bone. Her hearing in that ear was not perfect, but she was not absolutely deaf. The operation was then performed on the boy, when, by the aid of the probe, the bone was found to be denuded of its periosteum. Being of a strumous habit, he was ordered syrup of the iodide of iron, a small poultice of ground flax seed, and subsequently, an ointment of the red oxide of mercury, to dress the part and anoint a tent so as to keep it open.

April 1st the wound suppurated freely, but the opening was disposed to close and it was accordingly enlarged and the previous treatment continued, accompanied with good diet and exercise in the open air. By the end of the month he was reported well, wound healed and all swelling had disappeared.

CASE VIII.—*Perforation of the Mastoid Process; Otorrhæa; Removal of Necrosed Bone; Recovery.* Mary R., æt. eight years, a robust looking child, came under my care at the Howard Hospital early in September, 1861. It was reported that she had suffered from scarlet fever of a most malignant type, having been in a state of coma for several days. This gradually passed away when the throat and ears became affected, and a long period elapsed before complete convalescence took place.

Present condition.—She is deaf in the right ear, with a constant discharge of offensive pus, etc. On washing out the parts, the meatus was found to have a white, soft deposit on its surface with granulations projecting from the tympanum through a perforation involving the greater part of the membrana tympani.

A weak wash of nitrate of silver in solution was to be used and the parts kept clean by repeated injections of tepid water.

Counter irritation was to be kept up in front of the ear and air was to be passed through the Eustachian tube to keep it open and at the same time force any accumulation of pus out from the middle ear. A guarded prognosis was given. Having improved considerably, she ceased attendance, and the writer saw nothing of her until called in haste to see her, a few weeks later. The history received from her father, an intelligent man, was as follows: The Sunday previous, being a very hot day, when the child was sleeping on a sofa, the father, to cool the house, opened both the front and back doors, and thus produced a strong draught of cool air which blew upon the sleeping child. After retiring she was attacked in the middle of the night with intense pain in her ear, so severe as to cause her to scream and at times become delirious. The parents applied a blister and used other means but the relief was of short duration. When I was called to her she was suffering intense pain, high fever alternating with chills, pulse one hundred and thirty, and there was swelling over the mastoid region, involving the side of the face and eye.

Treatment.—Believing that pus was formed in the mastoid cells and was endeavoring to make its way outwards, requiring only an outlet, I divided the skin, muscle and periosteum freely down to the bone. On withdrawing the knife, blood mixed with imperfectly formed pus, flowed very freely. A hot poultice was ordered to be repeated every few hours. A saline mixture of citrate of potassa, containing sulphate of morphia was prescribed to relieve pain.

Four days later, better. Pus discharging from the opening, which not being quite free enough, was stimulated by the application of powdered red oxide of mercury.

November—During this month, visited the case every few days. The opening being disposed to close, a sharp, hollow steel probe was used to perforate to the surface of the dense bone, and the solid nitrate of silver, which was applied freely, increased the discharge.

December.—In the early part of this month the opening was again enlarged and a piece of bone discharged. On the 19th carious bone was found by the probe to be movable, and by enlarging the wound a still larger piece was removed with some difficulty, the bleeding being very free. A few days after this operation the discharge ceased and the wound healed. There

was a deep depression behind the ear from loss of bone; the perforation in the membrana tympani had closed somewhat; the child was deaf in that ear, but otherwise well, and continued so for several years. The bone measures six-tenths of an inch in length and three-tenths of an inch in width. It is now in the writer's collection, and has been examined by numerous distinguished surgeons.

In the cases above related, which number might have been increased by many others, we have examples of three of the principal forms of disease of the mastoid region, which will be frequently met with by those who devote much attention to the ear, and occasionally by those who pay no particular attention to this special department.

In case IV the simple division of the periosteum, with the subsequent application of a blister, was all that was necessary to complete the cure. In the next case it required the second enlargement of the opening and the breaking down of the bone by the application of nitrate of silver.

The third class of cases is of greater danger to the patient, as it involves a large number of cells of the mastoid process. It, therefore, requires a free incision down to the bone, with its removal in a diseased state.

This operation of perforating the mastoid cells, December, 1861, and published February, 1862, was the first of the kind that had been performed in the United States (so far as the writer is aware), and has been repeated by him several times since.

CASE IX?—Foreign body, with middle ear inflammation, involving the mastoid cells—Operation followed by erysipelas—Ultimate recovery.—W. H., æt. 42, a merchant of Mahanoy City, Pa., consulted me in 1877, bringing a letter from his family physician, Dr. L. M. Thompson. The letter stated: "Patient has had a chronic suppurative inflammation of the left ear since childhood, the result of scarlet fever, accompanied with tinnitus of a distressing character, with intense pain over the temporal and mastoid region, extending also to the base of the brain. The pain which is now almost constant, is accompanied with attacks of oppression and giddiness, particularly when the eyes are directed upwards." While about his business he would, when these attacks

7. Transactions of Medical Society, ass. cit., vol. xii, part 1.

were coming on, by picking, or rather forcibly scraping or digging into the meatus as far and as deeply as possible, with a pencil, toothpick, pen-holder or knitting needle, provoke a discharge of pus, which afforded temporary relief. During one of these efforts at relief, and while much interested in his newspaper, he probed, literally dug, too deeply, and an attack of convulsions, followed by a partial paralysis, was the result. Various methods of treatment had been pursued, but the symptoms remained unchanged.

Status Præsens.—Left auricle red and swollen, meatus externus eczematous, discharge thin and offensive, canal narrowed, membrana tympani and ossicles gone, promontory glistening and in places sclerosed. No other details of middle ear to be made out on account of the swollen condition of the mucous membrane and canal. Eustachian tube pervious. Hears a loud voice, but not the watch, even on contact. Pain, on pressure, over mastoid and against the sides of the canal. Right ear normal. No particular throat trouble. Recommended, on his return, to use local depletion by leeches, followed by hot fomentations; also, large doses of bromide potassium, chloral and morphia, with quinine.

These means afforded but temporary relief to the pain, even after using half grain doses of morphia, hypodermically, every little while, as well as successive relays of leeches. I then advised a free post auricular incision (Wilde's) to be made through the integument down to the bone. This was most thoroughly done by his physician, who reported relief obtained for but a few days, after which time the symptoms returned as before. Finally, at the request of Dr. Thompson, the patient returned, to be under my immediate care, and was faithfully attended by myself and son for several weeks. Meanwhile, to be brief, the symptoms varied, at times better, then worse, and finally relapsed into the old condition. Our patient and his friends having grown impatient, I told them there was but one course to pursue, viz., that of perforating the mastoid.

The discharge had ceased, the painfulness and tinnitus had increased, giddiness and more or less delirium were constant, with loss of appetite and symptoms of a general breakdown; so that, after due deliberation and consideration of the just mentioned

grave symptoms, we decided, after consulting Drs. Thompson, Collins, Schapring and C. S. Turnbull, to operate.

Mr. H. was admitted October 3, 1877, as a private patient, to the Jefferson Medical College Hospital, and I operated in the presence of Drs. S. W. Gross, J. H. Brinton, Collins, Allis, Wirgman, Poichet, James and my son. The post auricular incision previously made had not entirely healed. This I enlarged, and with a strong knife extended upwards, scraping as I went, and pushing the periosteum to either side. The bone was not found soft or abnormally rough. A drill was then applied at a point about a quarter of an inch distant from the auditory canal and below the level of its upper rim, rotating inward and slightly forward. The drill was withdrawn and carefully cleansed at intervals, and but slight force used, on account of the danger of slipping suddenly and breaking down the delicate cancellated cells of the mastoid. This care is necessary on account of the varying depth of the cells, which is apparent even on opposite sides of the same skull.

Upon reaching and opening the cells, no pus, but a dram or two of an aqueous and dark red colored fluid escaped. The wound was cleansed and sprayed with carbolized ether (kept up during the operation as well), packed with greased lint, and the patient put to bed. No anodyne was required, as the patient was so thoroughly narcotized with the amount of ether which was used. The after treatment consisted in the regular administration of beef tea and a nourishing diet, while the use of alcoholic stimulants was avoided. The wound was dressed twice in twenty-four hours, and after the third day a discharge commenced, which continued while the opening was kept plugged with a linen tent soaked in carbolized olive oil. The ear was thoroughly syringed every day. Our patient never seemed to rally, although he grew no worse, but at the end of the second week all hopes were checked by the appearance of an erysipelatous swelling in the neighborhood of the wound. This spread over the ear, cheek and entire face, but stopped abruptly before reaching the ear of the other side. Repeated doses of the muriated tinct. of iron, locally, with good diet and the attentions of Dr. Poichet, the resident physician, and nursing of a devoted wife, brought about a favorable result.

Convalescence soon commenced, particularly after a copious discharge of pus from the ear and wound, and just one month after

the operation our patient left for home, free from pain, mind quite clear, slight discharge from the ear, wound almost closed, and general condition rapidly improving. Since that time he has been under the judicious care of Dr. Thompson, through whose courtesy I received many bulletins.

A recent letter from Dr. Thompson says: "Mr. H. has never, since the operation, had enough pain to require even a mild anodyne, and he requests me to state that he has now no desire to dig in his ear on account of any disagreeable feeling; is able to see company, and he took dinner with his family, Thanksgiving day, November 29."

The following is an extract from a letter received from Dr. Thompson, the attending physician, which makes this history complete: "You will well remember with what tenacity Mr. H. insisted upon a portion of a toothpick being lost in the ear. Some weeks ago he withdrew the cotton from the ear, when, to his great surprise and delight, he discovered adhering by dried blood to the cotton, a piece of wood one-half inch long and from one-half to three-fourths of an inch in thickness. With its discharge the acute pain that had come on recently, ceased. The wood must have passed into the middle ear, and the discharge must have washed it out. No matter what the cause, or what produced the disease, we were justified in performing the operation, as the man must have died had it not been done."

We have repeatedly demonstrated upon the cadaver, and the following facts hold good: If the operation is made as usually directed in most of the works upon disease of the ear, viz., "On a line with the upper part of the auditory canal," the incision must penetrate deeply, enter the horizontal or sigmoid fossa or sinus. Again, if a probe be thrust through such an opening made in the cells, it is liable, even when but slight force is employed, to fracture the thin lamella of bone and cut the middle cerebral fossa, which would likely prove fatal. Therefore the knife, gouge, drill or trephine, should be inserted on a line with the superior edge of the auditory canal, but not at the upper edge, and the opening carried horizontally and a little forward and not upwards. In this way all the vital parts are avoided, and we sooner or later reach the large cells of the mastoid. The after treatment, in which great care must be exercised in cleansing or probing, constitutes a process which should be carried on every twelve hours.

Notwithstanding the dangers due to frequent anatomical deviations of the bone, the operation, when urgent, is highly to be recommended, and has now become a standard one.

CASE X.—Inflammation of the Subcutaneous Tissue of the Supra and Postauricular Region, extending into the Middle Ear from which pus was discharged, which found its way through the posterior wall of the meatus, in which was a polypoid growth. Operation and recovery, with an abstract of five cases.

E. S., aged forty-eight years, admitted to Jefferson Medical College Hospital from Chester County, Pennsylvania, April 10, 1879. There was only a brief history brought by the physician who accompanied him to the hospital. Exposure to intense cold in December, 1878, was followed by a succession of swellings back of the ear and ultimately a discharge from the ear. He had been leeches, cupped, blistered and iodine was employed with other applications to the post-auricular region, but the patient had gradually become worse, was feeble and now had a constant pain in his head. His physician also stated that he believed there was inflammation of the mastoid cells, and that they required perforation.

On examination of the patient in consultation with Prof. S. D. Gross and other members of the staff of the hospital, it was concluded that the cells were not involved. The following was his condition: Slight swelling on the upper part of the sternocleido-mastoid muscle, pain most severe in the afternoon on the upper part of the parietal bone, over which he kept up a constant rubbing with his hand. Examination with the speculum showed a polypoid growth or granulation tumor just within the meatus, which it filled up. After its removal a probe could be passed to the meatus, showing a connection between the posterior wall of the meatus and the post-auricular region, and pus also issued more freely when the post-auricular region was pressed upon; his pulse was 84, temperature 100°, and this continued, varying but little, until there was a more decided swelling, when the temperature reached 110°, i. e., just prior to the opening of the abscesses.

Prof. S. D. Gross advised blistering behind the ear, these to be followed by poultices, by quinine and iron internally, and painting the region with tincture of iodine; to relieve the constant pain chloral hydrate and potassium bromide were admin-

istered through the day, and a local anæsthetic of camphor and chloral to apply to the scalp, and a nourishing diet, with a hypodermic injection of morphia at night. After the application of the blister there was a contraction of the neck, which caused the head to be held to the same side. The discharge from his ear was thin, light-colored pus with no odor, the ear was kept clean and Politzer's douche was employed with hydrobromic ether vapor. The hearing had never been much impaired. On the 26th day of April, the patient not improving, Drs. S. D. and S. W. Gross visited the case in consultation with me, and after examination they both came to the conclusion that there was a periotitis and there was pus, and agreed with me that a deep and long incision must be made over the mastoid, which I performed *under hydrobromic ether*, down to the bone.

No pus followed the incision, but the hemorrhage was very free. The bone was not diseased, nor even roughened in the least. The incision was kept open for some days by a tent saturated with carbolic acid and olive oil, and over the parts a poultice was constantly applied. The following day the patient's pulse was 80, and temperature 99°, pain much relieved, and he was directed to continue quinine and iron in pill form with milk punch and nourishing food.

April 28th, pulse and temperature the same; 29th and 30th, the pulse about the same, was out in ward, and even took a walk in the open air; continued to do well until the 5th of May, when the temperature arose 101½°, pulse 92. The patient was much disturbed with his pain, there was a swelling on a line with the sterno-cleido-mastoid muscle, with a slight chill and an abscess formed near the point of incision, and was freely opened. From this time the pulse was reduced to 80, and temperature to 99°, he made a slow but sure convalescence, and was discharged well on May 9, 1879.

On carefully studying this case, which at first was very obscure, not having seen it for five months from commencement of attack, when he entered the hospital, and was placed under my care, I felt satisfied that the mastoid cells were not involved, because the swelling was very low down in the supra and post-auricular region, the pain was never over the larger cells, but high up near the top of the parietal bone, which latter indicated brain abscess, but without other symptoms to confirm it. I there-

fore placed it as a pain of a reflex character from irritation of the small occipital and auriculo-temporal nerve.

On reading the report of cases by Voltolini,⁸ in which he directs attention to *a form of mastoid periostitis, as undescribed, by otological authorities*. (I felt sure that this was a similar case, such as he described, although there was more disease of the external than of the middle ear, and which may have occurred from the use of irritating applications). The ear, Voltolini states, may remain intact, but may sometimes in the course of the disease participate in the inflammation. "The disease begins with severe tearing pains on one or both sides of the head, which extend to the side of the face and teeth. The pain is sometimes referred to carious teeth by the patient, but later, fever sets in, and the pain becomes localized above the posterior auricular region, the mastoid surface becomes swollen, red, tense and exceedingly tender. If active antiphlogistic treatment does not relieve these symptoms the case progresses to suppuration, under which circumstances the best remedy is always the knife." The same rule has always held good in regard to the early use of the knife, which Wilde recommended where superficial periosteitis followed an acute inflammation of the middle ear with a sudden checking of the discharge. In the three cases reported by Voltolini all were the result of cold and exposure. In the first case after the use of leeches, which did not diminish the symptoms on the following day, a long and deep incision was made over the mastoid. The pain was almost immediately relieved, the patient slept well and made a good recovery.

The second case was treated by the family physician for a supposed disease of the ear. Being called in consultation, I found the following condition: The region behind and above the ear was swollen, red and tender; with the exception of a slight swelling on the superior posterior wall of the external auditory canal, the outer ear was normal. The membrana tympani presented no special abnormal appearances, nor was there any evidence of more deep-seated trouble. Three days later, after application of poultices, and after an incision was made above and behind the ear, with liberation of considerable sanious pus

8. R. Voltolini: "Die Acute Zellhautentzündung in der supra- und postauricular Gegend." Monats, für Ohrenheilkunde, Dec. 1875, p. 789.

and relief of pain, which relief continued to the termination of the case in recovery.

The third case given did not end so fortunately; the mastoid region became swollen, and the proposal for an incision made by the physician called in attendance being firmly refused, the inflammation took its course. The application of poultices finally induced a spontaneous opening and discharge, with some relief to pain, which still continued in a measure. Nine months after the first attack the patient was seen accidentally, and he found the following conditions present: The hearing was but slightly diminished, as the patient could easily hear conversation in the ordinary tone. The region behind and above both ears was much swollen and relaxed, pus discharged from the left ear having found its way through the posterior wall of the meatus (as in the case No. 10); fistulous openings in the neck lead upward to the original seat of the inflammatory process, the pus having burrowed on both sides for a distance of from two to three inches before escaping.

Free incisions, opening up the channels through which the pus had burrowed, were made, but a careful examination failed to detect any implication of the bone; this treatment followed by poultices seemed of good effect and the patient improved with nourishing food and rest; on the third day fever set in with increased weakness, erysipelatous inflammation attacked the edges of the cuts and then extended over the scalp, and on the ninth day after the operation the patient died.

A study of these cases (one by Dr. Blake, of Boston, and one by Dr. H. Knapp, of New York⁹) and ours reported as above, shows the disease to be neither one of the auricle, the external auditory canal, the tympanic cavity, nor the mastoid cells, but one that originates without, and not within the ear, and one that might progress inward, but would hardly penetrate deeply.

To Dr. Voltolini is due the credit of having given a clear and detailed description of this affection which has been translated by Dr. C. J. Blake, of Boston, who also added a case, the first one in the United States. It is not noticed by Dr. A. H. Buck in his paper on diseases of the mastoid process in the *Archives of Ophthalmology and Otology* Vol. III, No. 1, p. 179, for in this

9. Report of the First Congress of the International Otological Society. D. Appleton & Co., New York, 1877, p. 80.

he states that "the inflammation of the external periosteum of the mastoid process occurs as a concomitant symptom or phase of an acute inflammation of the external auditory canal," nor is it mentioned in the still more recent works on otology.

Since the discharge of patient Case X, we have received information that he exposed himself for two days to the rain and had a slight return of the swelling and pain, but the otorrheal discharge has gradually improved. The physician who has charge of the case was directed to open the swelling and keep it open with a tent saturated with olive oil and carbolic acid, also to wash out the opening with a solution of carbolic acid and water, and to change the form of his tonic from time to time, as the conditions arising might indicate.

APPENDIX.

Within the last week we have had a most interesting case under our care, sent us by Dr. Schott, of this city. The brief history is as follows:

A family of three children, one girl and two boys, were attacked with malignant scarlet fever. After some weeks the girl died, and the other two children were so low as not to be expected to recover, and in the case of the youngest, a boy of four years, had a persistent tonsillitis, with swelling of the neck up to the ears, and involving the ear and extending to the Eustachian tube and mastoid cells. The elder boy had otitis media purulenta chronica, with perforation of both membrana tympana. After careful treatment for many weeks the boys were sent to me. The elder boy, after a month's treatment of the ears, recovered, and is now able to be at school. The boy of four had otitis media purulenta chronica, with five fistulous openings over the mastoid process, two on the left and three on the right. When these openings were examined with a probe, they were found to contain sequestra. The piece of bone on the left was found to be movable and was extracted January 11th, and very soon one of the openings healed up while we used a simple carbolic acid lotion. The other remained open and the discharge diminished, yet there was found on examination a portion of roughened bone which was scraped by the sharp steel spoon and capsici sulph. in powder, applied. The largest opening on the right side was filled up with a wax sponge tent to dilate the opening, and on January 31 the bridge of tissue was divided and the granulations

trimmed away. By means of a strong bone forceps a large sequestration was removed while the little fellow was under the influence of hydrobromic ether. He is now doing well.

In this connection we would most highly recommend this new anæsthetic to the surgical profession, and indeed to all who operate. We introduced the hydrobromic ether in this country in the summer of 1877¹⁰ and have employed it in over one hundred cases which were reported at the International Congress at Amsterdam, in 1879. We also brought it before the Section of Otology at the meeting of the British Medical Association, at Cork. In June, 1879, we administered it in the public clinic before a class of two hundred students, at Jefferson College Hospital, and Dr. Samuel W. Gross removed a cyst in front of the hyoid bone in a young girl, Dr. Levis having charge of the pulse, which he found but little affected. It has been employed now in all classes of operations, and its advantages are as follows:

First. It is perfectly safe as an anæsthetic, and free from many of the objections to chloroform or ether.

Second. It is almost as rapid in its anæsthetic effects as chloroform and is more rapidly eliminated by the lungs.

Third. It is more agreeable in its odor than ordinary ether, is not inflammable, and therefore can be employed at night in using the actual cautery, or in a private office or a lady's chamber without being offensive or dangerous.

Fourth. The cost is now about thirty-five cents per ounce, yet it requires only two drams to produce its anæsthetic influence, and two more to keep it up.

Fifth. Vomiting is very rare, unless the stomach has been recently filled with solid food.

Sixth. The pulse is increased in force and volume, respiration not much over the normal, and the pupil at times slightly dilated, with free action on the skin.

10. See *The Advantages and Accidents of Artificial Anæsthetics*, first edition; also 2d edition, pp. 67, 80, 294, with a full account of its properties and the best method of preparing it, etc.

Translations.

FROM THE ITALIAN.

DR. A. H. OHMANN-DUMESNIL, Translator. [For the JOURNAL.]

ALBUMINURIA IN BRIGHT'S DISEASE.—Prof. Semmola, of Naples, read a note on Bright's disease before the International Congress at Amsterdam. In this note he gave the following, connected with albuminuria :

Dyscrasic albuminuria. Chemical conditions of the blood.	By the presence in the blood of an excess of albuminoids derived from food.	Normal kidney (physiological experiment easily made).	Individual maximum of urea, sulphates and phosphates in the urine.
	By an excess of albuminoids in the blood, that is due to a fault in the combustion.	Irritative hyperæmia—more or less intense, according to the organ or apparatus whose function has been disturbed (cutaneous surface, lung disease, etc.)	Progressive diminution of urea in the urine without accumulation in the blood ; defect in production.
	By an alteration in the chemical constitution of the circulating albuminoids, which renders them unassimilable, very diffusible, etc. ; (cachexias).	Fatty degeneration. Amyloid degeneration.	The same as above in regard to the gravity of the cause which produces the cachexia
Mechanical albuminuria. Degree of pressure of the blood current.	Different neuropathies having direct or remote influences on the vaso-motor system.	Renal stasis more or less temporary.	Urea almost normal and within the limits of physiological oscillations.
	Pregnancy and in general all pressure exercised on the vena cava inferior or on the renal veins, etc.	The same as above, but frequently the stasis becomes permanent on account of general conditions of the body or by organic causes which produce the pressure.	Urea according to the pregnancy or to the organic causes producing the compression.
	Heart diseases which have arrived at their non-compensating period—that is to say, to the inversion of the arterial and venous tensions.	Persistent stasis. Cyanosed kidney. Cardiac kidney.	Diminished urea according to the heart disease.

Irritative albuminuria. Histological change in the kidneys.	All irritative processes of the kidneys in their different stages up to complete nephritis. The albuminous filtration is more or less considerable in proportion to the part played and to the influence of the inflamed elements in the mechanism of urinary filtration.	All the anatomical consequences of inflammation, from the simple turbid state and degeneration of the various epitheliums to sclerosis and atrophy of the kidney, according to the special histological state of the inflammatory process and of the special cause which has produced it.	Normal urea augmented insensibly, according to the fever (acute stage). Diminished urea without accumulation in the blood, according to general troubles in combustion. Diminished urea and accumulation in the blood as a consequence of faulty filtration.
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—[*Giornale Internazionale della Scienze Mediche.*

FROM THE FRENCH.

EXCERPTS FROM LATE FRENCH JOURNALS. [Translated for the JOURNAL.] By Dr. A. H. Ohmann-Dumesnil, of St. Louis.

FUNGATING EXCRESCENCES OF THE UMBILICUS IN INFANTS.—At the Anatomical Society, M. Ch. Féré called attention to the fact that these tumors are not very rare but still have not been studied much in certain directions. These little tumors generally show themselves four or five days after the cord has dropped off, and develop rapidly. They assume various forms: cylindrical, pedunculated, sessile, etc. Their volume is generally that of a pea although they occasionally attain the size of a cherry. They have no tendency to cure spontaneously. The cylindrical vegetations may be destroyed by ligating or cutting, and the sessile forms by cauterization. The histological structure is divided: some are granulomas (of Virchow) and the most common; others vascular fungus, rare; and the rest adenomas. The author's examinations showed them to be sarcomatous (with small cells) and a tendency to form connective tissue.—*Progrès Médical*, Dec. 20, 1879.

NEW METHOD FOR THE POST-MORTEM STUDY OF GASTRIC LESIONS.—M. Damoschino detailed, to the Biological Society, a method to preserve the stomach in its true state after death. It is impossible almost to make an autopsy inside of 24 hours after death and during that time the stomach undergoes changes due

to the action of the gastric juice and to the decomposition of food. He thinks that this can be obviated by filling the stomach with 86 per cent alcohol, one or two hours after death. Besides its antiseptic properties the alcohol hardens the tissues and renders them much more advantageous for microscopic investigations. The color of the mucous membrane is reduced a trifle paler. —*Ibid*, Dec. 27, 1879.

TRAUMATIC ATROPHY OF THE PAPILLA OF THE OPTIC NERVE.—M. Galezowski recognizes three varieties : 1st. Where it is the result of meningo-cephalitis and is only observed when the membranes of the brain had been wounded. It is characterized by greyish circumpapillar exudates which are ineffaceable. 2d. The result of a direct wound of the optic nerve, in its orbital part, by means of thrusts from weapons or by fractures into the optic foramen. 3d. Loss of sight is immediate in one eye in certain fractures of the skull and the atrophy of the optic nerves becomes progressive as in locomotor ataxy. These are very interesting phases whose pathology is not as yet very clear.—*Gazette des Hôpitaux*, Dec. 18, 1879.

PATHOLOGY AND TREATMENT OF RABIES.—Dr. Brochin, in a review of a work by Dr. Duboné, gives the following as the author's conclusions :

The morbid agent progresses slowly in a centripetal direction, from the site of the wound to the spinal center and backwards very rapidly in a centrifugal direction.

The effects of rabies commence as soon as the virus attains the spinal center and are recognized by the radiating pains.

The period of incubation is, in general, proportioned to the distance the virus must travel. Whence it follows that it is shorter in children than in adults, in wounds of the face, etc.

The morbid phenomena which characterize the period of invasion are directed to the general and sensorial sensibility, which at first becomes more acute but finally disappears and paralysis results.

The lesions of rabies are of two kinds : those which are proximate, visible only with the aid of the microscope, and consisting in an increased opacity of the nerve cells, together with a granular state of a number of afferent and efferent fibers ; the other lesions visible to the naked eye, are marked congestion of various organs and viscera.

Rabies belongs to a grand class of morbid affections of a peripheral origin, like certain eruptive fevers and neuroses.

The transmission of the virus along the course of nerves furnishes the following therapeutic indications: 1st, to destroy the virus *in situ*; 2d, to prevent its passage to the spinal cord, in case it cannot be destroyed; 3d, to dull the sensibility of the spinal center during the whole period of incubation, in case the means given above are not feasible; 4th, to constantly act on the centers of the cords by intra-venous injections, to combat the ordinarily rapid progress of asphyxia.

The reviewer states that the unilateral character of rabies is not an observed fact and that experiments (of which a *resumé* was given in a former number of the JOURNAL) have been made with rabbits which tends to prove it bilateral,—*Ibid*, Dec. 23, 1879.

ESERINE.—Dr. A. Dohenne says that eserine has certain indications for its use and that it is a mistake to employ it as a substitute for atropine, in all cases. Not only this, but it frequently becomes a source of danger. It is not necessary to mention the antiglaucomatous properties of eserine; but besides this its use ought to be limited to abscess and simple ulceration of the cornea, with a limited use in inflammatory or traumatic perforations accompanied by herniairids, hypopia, etc. He relates the cases of a number of patients, whom he treated for iritis with synechia caused by eserine, and which promptly yielded to the use of atropine.—*France Médicale*, Dec. 27, 1879.

Proceedings of Medical Societies.

TRI-STATE MEDICAL SOCIETY.

[Reported for the JOURNAL.]

FIFTH ANNUAL SESSION HELD AT EVANSVILLE, IND., NOV. 4TH, 5TH, AND 6TH, 1879.

DISCUSSION OF DRS. MUMFORD AND HIBBERD'S PAPERS.

DR. J. M. HOLLOWAY, Louisville, Ky.— I desire to express my great pleasure at hearing these papers, and move their reference to the proper committee. This motion was seconded and carried.

DR. T. M. STEVENS, Indianapolis, Ind.—These are valuable papers. They recall several facts. In the first paper it was truly stated that a great many cases are taken for consumption or tuberculosis that are not such. As far as Dr. Hibberd's paper is concerned, it amounted to about this, viz: That consumption cannot be cured by drugs. Civilization is a failure in many points. If it would build up the physical health of men it would be no failure, but civilization does not build up physical health; nor do drugs. Barbarous nations are far healthier than we are.

DR. F. M. BEARD, Vincennes, Ind.—Some gentlemen who were present at Springfield, Ill., last year will recall Dr. Hibberd's remarks on the use of quinine, and of his having criticized the speakers on that occasion pretty freely. I am happy to see that Dr. Hibberd had been converted. He has found another disease that quinine cures, viz., consumption.

DR. J. M. HOLLOWAY—It seems to me these papers will have a wide influence on the profession. Coming from men of experience, they will teach younger men not to rely so much upon the use of drugs in the treatment of this most intractable disease, which we call consumption. The papers are suggestive of that point.

I would have been glad if Dr. Hibberd and Dr. Mumford had alluded to another important point which is not controlled by the profession, but might be influenced by them very greatly; that is the hygienic management of those we call consumptives;

trying to exert all the influence possible in the direction of the prevention of the disease, particularly in the line of hereditary transmission. I know it is a delicate subject, and often where the professional attendant interferes he injures himself. Sometimes the healthy one of the pair so impresses the germ that, together with proper hygienic surroundings, disease in the offspring is prevented, but we are far from certain that even a healthy individual can have healthy offspring by a consumptive or even one who is in the line of hereditary consumption. I am gratified at another point these papers suggest, namely, the tendency to go around in a circle and come back to the old point, at least a point reached by some of our profession long ago. The profession is not altogether responsible for this drifting tendency, while so great a power as the press is constantly forcing on the people remedies for the profession to use.

Excellent doctors are swayed and captured, not only by publications but by commercial travellers who distribute the publications, calling attention to the value of special remedies in the management of this disease, and setting forth the plausible idea that they are remedies to build up the system.

I did not intend to drift into these remarks. I rise mainly to put on record a fact which will be interesting to the younger members of the profession, and which is familiar to the older members living in and around Evansville.

Many years ago—about the year 1887—a very interesting work was published Louisville, by a doctor who lived in Louisville, on the curability of consumption. This author adopted the pathology of the disease which was considered the best at the time; he was too modest to discuss the subject of the pathological changes in the lungs on the limited knowledge he had. He (then living in Virginia) and his room-mate were obliged to differ with an eminent doctor, with whom they were studying medicine, as regards the use of depletion, antimony and diuretics that were used by the profession at the time as pleasant(?) remedies to cure this terrible disease. These room-mates parted, one for Tennessee, one for Kentucky. Before leaving they agreed, that as they themselves were subjects of phthisis, they would strive to adopt a directly opposite treatment to that suggested by their distinguished tutor, upon their own persons, and if they found the treatment beneficial, they would use it on their patients. The writer of this book in his

preface, says that his friend and class-mate did an active practice on horseback in that lovely country. He accomplished a cure in his case by producing what he termed the antipodes of consumption—that was gout. In fifteen or sixteen years he died of gout, while the other, who had lived on frog legs and eschewed medicine, but still being careless about himself, and being too much of a student, spending too little time in the open air, had not improved so much as to die of gout, or produce gout. He felt he had improved his condition by the treatment, now spoken of so frequently, as the “building up treatment” and the avoidance of specific medication. He lived to quite a considerable old age. After he had written this book, I had the pleasure of knowing him and catching frogs for him. While I lived in Louisville this thoughtful and honest man was hounded out of the city of Louisville. He was doing a successful practice, but so great was the opposition to his building up method of curing consumption, that the tutors of the great University of Louisville and their followers hounded him from his home, by bringing him into such derision that he was eventually deprived of practice and compelled to leave Louisville. He found an asylum just below the creek not far from this house, here in Evansville. This man wrote his convictions, which have proven to be true, but truly did he suffer for it. He reared children and finally he died at a ripe old age. Perhaps he died of consumption; I do not know. The elder members of the profession may have seen this book. I, perhaps, possess to day the only copy in the state of Kentucky.

I allude to the work of Dr. William A. McDowell, a cousin of the distinguished Dr. Ephraim McDowell, and quite a near relative of Dr. J. N. McDowell, the great and eccentric surgeon of St. Louis. I rise as I said, to have it placed on record that these men—Drs. Mumford and Hibberd—have come to the same conclusion that Dr. McDowell did in the year 1837.

DR. G. F. SENTER, Evansville, Ind.—Dr. Payne, of Illinois, had been afflicted with consumption; he went to Darwin, Ill.; he relied on quinine and whisky, and died at an old age. At his death he had but a part of one lung and he died from another disease. In regard to the treatment suggested by the papers I think that it is proper; I like the effects of opium; I give a dose of it at night if necessary. Another remedy I often give, is

quinine; it stops the fever, and stops the tendency to so-called galloping consumption. It should be remembered that fever is produced, in these cases, by disintegration of the tissue, and this is intensified where we have local irritation and congestion. The quinine has the effect of re-establishing the circulation of these local congestions as well as of the general system. The other treatment suggested I think is eminently proper; milk I used in place of cod liver oil. I let the patient drink it *ad libitum*. The rule I follow is, never to let a consumptive patient go to bed hungry.

Dr. WILLIAMS, Cincinnati, O.—I am reminded of my experience when I was a medical student. I went to hear Velpeau. He brought before his students a man who had erysipelas. He says: "One of the first things you have to learn, is to respect the authorities in the curability of disease. I will enumerate a number of well authenticated remedies for erysipelas." He went over all of them, and when he was through, he asked his students what they thought of the curability of erysipelas. They replied that he should answer for them. He said that erysipelas was a self-limiting disease, and that there were too many remedies for it and none were of specific value. It was one of those diseases that need to be managed throughout its course, and conducted safely to its end.

The drift of this discussion seems to bring out, in my opinion, that treatment of consumption is not derived from direct experience but from the observation of others. I can perhaps illustrate it best by a story of one of our old Cincinnati physicians. He was fond of technical and stilted languages. A Spanish family came to the city; one of its members was taken sick. They understood a little English and called this doctor. He gave them a prescription for pills and he wrote the direction: "One pill to be taken three times a day in any convenient vehicle." The family looked in the dictionary to get at the meaning of the prescription. They got on well until they got to the word vehicle. They found "cart, wagon, carriage, buggy, wheelbarrow." They saw anything but the technical meaning of the word they were looking for. After grave consideration they came to the conclusion that the doctor meant he should ride out, and while in the vehicle he should take the pill. I think that consumption is oftener cured by riding out than by any kind of medicine.

EPIDEMIC SCARLET FEVER WITH REMARKS ON ITS HISTORY, DEFINITION, ORIGIN, PREVENTION, AND TREATMENT. By J. W. COMPTON, M. D., of Evansville, Ind.

The epidemic of scarlet fever which prevailed in the city of Evansville and vicinity from January, 1879, to November of the same year, was characterized more for its long continuance and its invasion of every portion of the city and adjacent country, than for its malignancy or mortality. Its approach was so insidious and so gradual that it had almost reached its climax before attracting much attention from the profession or the citizens.

In the month of January there were 15 cases; in Feb. 6; March, 6; April, 65; May, 349; June, 75; July, 41; Aug., 49; Sept., 20; October, 22; total; 638. The respective ages at which persons were attacked have been summed up as follows: under one year, 50; from one to three years, 120; from three to 6 years, 159; from six to ten years, 152; from ten to twenty, 113; from twenty to thirty, 16; from thirty to forty, 20; from forty to fifty, 5; from fifty to sixty, 2; and from sixty to seventy, 1; total, 638. The deaths from scarlet fever during January were 3; Feb., 1; March, 1; April, 15; May, 65; June, 27; July, 9; Aug., 7; Sept., 6; Oct., 8; total, 137. Showing a death rate of a fraction less than 1 in 5, a mortality approaching even that of the much dreaded yellow fever.

Prof. Chandler, of the New York Board of Health, is credited with saying that "the scarlet fever caused more deaths in New York last year than the yellow fever did in the South and yet failed to excite public apprehension or make people ordinarily careful to prevent infection." The citizens here in many instances continued to visit families infected with scarlet fever, permitted their children to visit and to remain in the room with the sick, and even brought their children from considerable distances in the country so that they contracted the disease and spread it through their neighborhood. In the south-west part of the city in Union township, five children died in one neighborhood eight and ten miles from the city and the contagion was traced to contact with the sick in this city. So strongly was I impressed with the dangerously infectious and contagious character of the disease, and

being urged to the task by the peculiarly strange and characteristic action of one of my patrons, that I wrote the following communication, which was published on the 13th of March, '79, in the daily *Courier* of this city, hoping that it might prove a warning and result in benefit to some persons at least. This letter received the following head lines from the editor: "Scarlet fever. Timely advice to mothers, and how they may prevent the spreading of this insidious disease." And reads: "In view of the epidemic and contagious character of scarlot fever, desolating so many fair homes by the merciless slaughter, many times, of all the innocent children of the household, creating in once happy families painful vacancies only to be filled by the bleeding memories and blasted hopes of fond but stricken parents, is it not strange that the physician should be so frequently asked, Is scarlet fever contagious? and when answered yes, exceedingly so, and another question follows when one child has been stricken by the disease, is there any way to prevent the other children from taking it? when answered, yes, separate them constantly from the sick one, is it not doubly strange that except in very few instances the advice of the physician is practically disregarded? Nevertheless, strange as it may appear, in many instances, it may be from a multiplicity of cares or from want of full confidence in the contagiousness of the disease, the wholesome council of the physician is only followed by efforts spasmodic at first and wholly abandoned in a day or two."

One representative case will serve to illustrate very many of a similar character: The oldest of a family of children nurses the sick child of a visitor who has just come from an infected district. The sick child has a fever and sore throat. The parents become alarmed about it and take it home. In a few days the one who nursed upon its lap a pestilential disease unawares, is attacked with fever and sore throat; the mother wraps up the throat and uses some domestic gargle, but in spite of her care the fever increases in intensity, swallowing becomes difficult, and after a day or two the Doctor is sent for. He discovers intense redness of the throat, a bright eruption on the skin, fever of high grade and rapid pulse, and in response to the anxious inquiries of the mother as to what the disease is, is compelled to answer, "your child has scarlet fever, madam." The mother freely sheds tears of anxiety and alarm, saying what shall I do? Here are the smaller children, some of them delicate. Is there any way to

keep them from having the disease? Yes, keep the other children out of and away from the room of the sick one; they will very likely not have it. The mother quickly cries out, "Here, Susan Jane, take these children to another part of the house and do not let them come near this room again." The doctor sees the children hurried out of the room and so far the prospect of confining the disease to the single case seems excellent. On his visit to his patient the succeeding day, the children observe him as he goes to the sick chamber; curiosity takes possession of them and they follow. The patient is examined and appears to be doing well, but hearing the door open and looking around discovers the children so hurriedly sent away the day before, standing directly in the doorway, inhaling the poisonous air as it rushes out through the open door to give place to the pure air that enters. The mother, intent on telling how much medicine and what kind of nourishment the sick one has taken, sees her precious darlings standing in the most dangerous position possible, and mildly says, without moving from her seat or manifesting any of the alarm of the previous day, "Sadie, dear, go away; Benny, son, go along and shut the door." But Sadie and Benny do not move and so they remain until their inclinations attract them in some other direction. On his visit the following day, the doctor finds all of the smaller children comfortably seated in the sick chamber busily engaged with their playthings, looking very much as if they had come to stay all day. The precautions of the family to limit the disease to one case, accidentally, I might say unavoidably exposed, have had their fitful existence and the universal laws governing disease germs will have received no infringement when four or five little coffins with their precious contents have been carefully removed and the loved ones with their parents' blighted hopes find a quiet resting place in the cemetery.

This is not the time to enter into an examination as to whether scarlet fever is a contagious or infectious disease, or the period during the course of the disease when it is more intensely one or the other, but to impress in plain language the necessity of and the means by which the disease may be limited to a single member of the household provided parents and citizens generally will, in good faith, aid the physician in his efforts by faithfully and persistently following his instructions. In doing this they must abandon all preconceived opinions that the dis-

ease is not contagious, or if so at all, only contagious during the fever or at certain other stages which mark the course of the malady. If the people can only be educated to know the contagious character of scarlet fever at all stages as the physician knows it, there would not be so much trouble in securing their coöperation in efforts to prevent the spread of the disease as soon as discovered.

A case reported by Dr. J. R. Black, of Ohio, will fully illustrate the necessity of thus educating the people, so that they may the more intelligently aid the profession in arresting the spread of the disease: "In the spring of 1876, while scarlet fever was prevailing as an epidemic, I was called to see the eldest child of Mr. F. He had three other children, all of whom were delicate and prone to attacks of angina. The entire surface of the boy, who was eight years old, had the characteristic exanthem with high fever, sore throat and rapid pulse. The parents were intensely alarmed as with three younger and more delicate children they might well be, at the thought that all of them must now suffer by the dreadful malady. 'Is there any way of preventing the other children having the disease, was the earnest inquiry. 'Certainly,' was my reply, 'If you will faithfully follow my directions.' 'That we will do; but Doctor, the other children have all been with the sick one while the fever was on him, and some doctors say that it is more catching then than at any other time.' 'Never mind what others say. Some think it is not contagious, not infectious, just as some think to this day that the world does not turn around.' Mr. F. had a large two-story house; the limitation of the disease appeared perfectly feasible. The chamber selected for the sick boy was up stairs, and in a room apart, as much as practicable, from the others, with an open fire-place, which, with the windows dropped from the top, afforded ample means for ventilation. The transom was closed and the door ordered not to be opened except for entrance and exit for the nurse. To her was given the following directions: to wear in the sick room a loose gown which must be thrown off before leaving the sick room, and if the patient had been handled to wash the hands in water into which a little carbolic acid had been dropped; not a handkerchief, napkin or piece of bed linen must be taken out of the room dry but must be plunged into water. During cutaneous exfoliation the scurf must be carefully collected from the sheets (which in this instance amounted to a

teaspoonful) and thrown into the fire; especial care must be taken that none falls upon the carpet. The isolation of the patient must be continued for at least ten days after desquamation has been completed, and the week prior to leaving the room, carbolic acid baths must be given once daily. This should be of tepid water, into which an ounce of the solution must be mixed. Every inch of the surface must be carefully disinfected, especially around the hair of the head. Many precautions have been rendered wholly nugatory by neglect of this point. The patient, it is said, has been carefully disinfected and yet the disease has spread. The mystery would be explained by an increase of vesicular power. The minute scales abounding in infection, linger in the head longer than any where on the person. A boy has been well of the fever say for a month. He goes upon the street, into the school room, sitting or standing with two or three others around him. He scratches his head, and it is only needful to place him where a few sunbeams are allowed to fall upon his head to be aware that a little cloud of infectious particles is diffused around him. Some of it is inhaled by his companions; it adheres to their throats, to the bronchia and bronchioles and so enters the blood. Mysteriously these companions are taken down with scarlet fever and yet parents are most confident that their children have not been any where near the infection. The patient's time of seclusion having elapsed and all the infected clothing as carefully disinfected as his person, he may then mix in safety with his fellows. Attention should then be turned to the bed-room and its furniture. No child should be allowed to enter the apartment until it is thoroughly disinfected. This may be done by closing the room tightly, windows, flue and doors, and then burning sulphur in it until the fumes pervade every part, allowing it to be thus tightly closed and fumigated for several hours. After this all windows should be thrown as wide open as possible, day and night for a week. The room will then, after cleaning in the ordinary way, be ready for occupancy. I believe the stamping out of scarlet fever and diphtheria in any particular locality to be practicable, if the populace were only educated up to its entire feasibility, and to render intelligent co-operation."

DEFINITION AND PATHOLOGY.—Aitken defines scarlet fever as "A febrile disease, the product of specific poison, which is reproduced during the progress of the affection. On the second

day of the illness, or sometimes later, a scarlet efflorescence generally appears on the fauces and pharynx, and on the face and neck, which spreads over the whole body and commonly terminates in desquamation from the fifth to the seventh day. The fever is accompanied with an affection of the kidneys, often with severe disease of the throat, or of some internal organ, and is sometimes followed by dropsy. The disease runs a definite course, and as a rule occurs only once in life." I am not inclined to take issue with this definition. Nor with his pathology, which says that "After a definite period of latency, the peculiar poison of scarlet fever induces a disorder of the blood, which is in the first instance made manifest by a febrile state and a disturbed condition of the great nervous centers." "That fever precedes the distinct actions of the skin in this disease is so general a rule that it has few exceptions; and the pyrexia has been occasionally so severe as to destroy the patients before the more specific lesions of the disease have been set up." As regards the disordered condition of the blood in scarlet fever, numerous and frequent experiments have settled the question beyond the reasonable possibility of a doubt.

Coze and Feltz experimented upon sixty-six rabbits, by introducing the scarlatinous blood under the skin. Of these sixty-six rabbits, sixty-two died between eighteen hours and fourteen days, having had high temperatures with diarrhoea and emaciation. An examination of the blood after death revealed the presence of bacteria and bacteridia the same as was found in the blood of the scarlatinous patients themselves. Under the magnifying power of five-hundred diameters, Ries examined the blood of a patient dying with scarlet fever, and found an infinite number of small dark bodies in the serum between the groups of blood corpuscles. He injected a few drops under the skin of the back of a rabbit and the animal died in twenty-four hours. Upon examination of the blood it was found to be similar to that previously injected. These and other experiments prove clearly that the poisonous principle enters the blood at the time of the inception of the disease and further that this poisonous principle must be dependent upon the disease germs, the very bacteria or micrococci found in the blood. These organisms being capable of reproducing themselves during the progress of the disease, we may readily account for the contagiousness of the disease, for the exhalations from the skin, the lungs and the secretions generally

which are all organs of elimination and eliminator of the blood and the blood contains the contagious principle upon which the infection is dependent.

A striking illustration of the contagious character of scarlet fever is afforded us in the experiments of inoculation, and it is further proven that the disease is developed in the inoculated form with quite as much intensity as it existed in the person from whom the matter was taken. This experiment was performed by Williams and seeing the result it was never afterward repeated. The usual mode of the introduction into the system of scarlatinous infection is through absorption by the mucous membranes, of the poison, generated by a patient suffering with the disease. This absorption may take place by a healthy person breathing an atmosphere contaminated by the exhalation from the sick or it may be directly by receiving upon the mucous membranes the flying particles of exfoliated dust, from carpets or infected clothing.

ORIGIN—Referring to the origin of scarlet fever, I assume that there can be no case of this disease without the presence of the seed germ; as soon may we expect that there can be a stalk of wheat without there having been a grain of wheat to originate it. We admit no other origin and we know that the grain of wheat from which the wheat stalk is growing, came from a parent grain of wheat. The same principle applies to this specific disease. Prof. Tyndall has proved the doctrine of spontaneous generation to be without foundation and has shown clearly that no life exists without antecedent life. I am aware that Oertel, in discussing infectious diseases, says that "A spontaneous outbreak of the disease may frequently be observed, especially in cities where it has already appeared epidemically, and it is then to be explained only by the theory that the disease has been produced by some miasm, some noxious agent, at certain times widespread, but the nature of which is yet unknown." If the disease has been epidemic in a city or other place it is a reasonable assumption that the germs, the seeds of the disease, have survived in some way all the elements of destruction, and finding a proper lodgment or proper soil have been warmed and nurtured into life, and it is no more a spontaneous outbreak than it would be for a stalk of wheat to be found in some out of the way place. The seed was there, no difference how it got there, and reproduced its kind.

Liebermeister says, in reference to the infectious diseases, that "through the long series of generations, diseases preserve their specific character with the utmost pertinacity; and if at times some of these characteristics are not brought into complete maturity, owing to an unfavorable field for their development, yet they assume them again so soon as they are planted in a favorable soil. In fine it may be said that no external influence ever decides the nature of the affection, and one infectious disease is never under such conditions, changed into another." The reason of this I will state is the fact that they each have only one specific cause. In support of this doctrine of the unity of the origin of scarlet fever. Prof. Jos. G. Richardson says: "This brings me to a notice of one of the most mischievous popular errors which a general acceptance of the germ theory would necessarily subvert, namely, the belief that small-pox and other contagious maladies often arise without previous exposure to the seeds of the disease. This doctrine is frequently advanced in private life as an excuse for neglect of proper care and caution in regard to children, etc., and occasionally sustained by public authorities as an apology for violation of quarantine and other sanitary regulations, and our utmost gratitude would be due to the germ theory of disease, even should its establishment render no other service to humanity than the explosion of this fallacy." He further remarks that, "putting aside the primary origin of disease, which, with one or two exceptions is a question of prehistoric times, the germ theory teaches us that every new case of the contagious maladies, already enumerated, is the immediate offsprings of a preceding case, and the direct exposure of an unprotected human being to the chance of having the spores or seeds of disease implanted in his system." The germs of purely miasmatic diseases should not be confounded with those germs producing diseases which are purely contagious; indeed, a very marked distinction, and the strong line of demarkation which their dissimilarity entitles them to, should be drawn between them. Liebermeister, in speaking of this distinction, uses the following language: "It is usual now to speak of contagium as a specific excitant of disease which originates in organisms suffering from the specific diseases; while miasm, on the other hand, is used as a specific excitant of a disease, which propagates itself outside of and disconnected from a previously diseased organism. Contagion can be conveyed by contact from a diseased person

to a sound one, producing the same disease in him, and then reproducing itself. Miasm originates from without; taken up into the body it can call a specific disease into action, but it cannot spread the disease any further by conveying it from a diseased to a sound person. There are diseases which are purely contagious and diseases which are purely miasmatic. Measles, scarlet fever, variola, vaccina, typhus, diphtheria, malignant pustule, rabies, virulent ulcers, blenorrhœas, syphilis, pyæmia and puerperal fever are purely contagious. In all of these diseases the poison can be conveyed from one individual to another by contact." The malarial diseases are purely miasmatic and are not conveyed from one individual to another.

PREVENTION—In addition to what has already been said in regard to isolation and disinfection as safeguards against the spread of this disease, I will quote from Aitken's Science and Practice of Medicine, vol. 1, page 320 :

"This disease being established, the patient generates a poison which may be communicated directly, or which may contaminate the atmosphere. The disease is so eminently communicable, that no susceptible person can remain in the same room, and hardly in the same house, without contracting it. The infecting distance is consequently much greater than in typhus. Indeed, it is necessary to break up every academic establishment in which scarlatina prevails; for it is hardly possible to isolate children in the same house or school, however large, so as to prevent the disease from spreading."

No such precautions were taken by our authorities during the progress of the epidemics of 1879. Our public and other schools containing nine thousand children of the city and vicinity, and which I believe excited greater influence than any other one cause in disseminating the widespread prevalence of this epidemic, continued to hold their daily sessions regardless of the number of interested parents who desired them closed, but who feared to take their children out of school because their absence would reduce their per centage in examinations and their prospects for promotion. One member of the school board and the superintendent of the public schools took their children out of school, and a number of school patrons did the same, until, by the number thus taken out and those out by reason of their having the fever, the schools were so much reduced in attendance that they

were compelled to close before the completion of the school year.

In regard to the treatment, I discovered perhaps the greatest unanimity among the profession here in the practice of freely oiling the entire surface with some bland oil to allay the itching so constant and an accompaniment of the eruptive stage of scarlet fever. There is also much unanimity in the effort to eliminate the poison from the system through the emunctories, the skin and kidneys. For the accomplishment of this purpose various diuretics and diaphoretics have been prescribed. One that appeared to have given general satisfaction to those who gave it a trial, was jaborandi. It produced copious diaphoresis with reduction of febrile symptoms, heat of skin and temperature. Some used sponging the surface with cold water to reduce the heat of skin and temperature and speak well of the results. In my own practice I can strongly recommend two remedies that I relied upon and from which entire satisfaction was received. Quinine, as an antipyretic, exhibited the most satisfactory results, producing copious diaphoresis and reducing more permanently the fever heat of skin and temperature, ameliorating all the symptoms of high fever, depression of the nerve centers and delirium. Its well known properties of being destructive to low forms of organisms to be found in the fermentative stage of malarial fevers and complications of this condition with scarlet fever, and there is every reason to believe that it also acts as an agent destructive to the germs of scarlet fever. To a child four years old with intense high grade of fever, delirium and stupor bordering at times on coma, I gave twenty grains of quinine in twelve hours, unmistakably reducing the temperature, inducing copious sweating and restoring the child to comfort and rationality to the extent that it eagerly sought its playthings which were placed on the bed. Twenty grains were repeated each day for three successive days, when the fever was quite subdued and a good recovery was made. As an eliminator of scarlet fever poison it is entitled to be placed at the head of the list.

The other remedy which gave me universal satisfaction was the muriated tincture of iron in solution of chlorate of potassa. In addition to the other medical properties which I shall mention hereafter this combination supercedes the disagreeable and annoying mopping of the throat, which so much excites children and against which they often struggle until greatly irritated and

exhausted. Where it can be used as a gargle I have the throat cleaned out by the remedy and after this the patient is directed to swallow a suitable portion. This plan of treatment, which is based upon the conviction that the fever is a distinct form of blood poison, caused by living organisms, capable of multiplication in the human system, has yielded excellent results; and in it is contained one great hope of the future in controlling this incorrigible disease. That there is in this fever a condition of toxæmia in which poisoned blood depraves the nervous and circulating systems as to produce that train of symptoms so characteristic of this fever, scarcely admits of a doubt. It then follows that the remedy best calculated in its known action, in destroying low forms of organisms, should be employed to neutralize and destroy the germs which produce the fever. This remedy contains chlorine in acid combination, prevents the tendency to putridity in the contents of the stomach, and by entering the blood by absorption comes in contact with the poison in that fluid, and by its well-known antiseptic properties acts as an antidote in the blood, destroying the poison it overtakes in that fluid.

ST. LOUIS MEDICAL SOCIETY.

Valedictory Address. Delivered January 10, 1880, by Charles W. Stevens, M. D., President of the Society for the year 1879.

[Reported for the JOURNAL.]

Among the number now constituting the roll of membership of this Society, or forming the body known as the medical profession of this city, but few are here to-night; in fact, but few are now living, who can in memory call up the forms, the features, the moral, intellectual or social qualities of our predecessors in the profession of thirty or forty years ago; but few are able to detail or recount the events, professional or otherwise, in which they were actors. Thirty years is regarded by statisticians as a generation of man; this is the average of human life. What, then, would be the average of our professional life, which begins, we will say, as a rule, when we have passed twenty-five years of our allotted time? It would doubtless fall much lower

in the scale, and perhaps we would be justified in saying that the average of the physician's professional life is twenty years. If by favorable surroundings, or by the kindness of our mother nature, a few of us have over-lived our time, it offers no warrant or guaranty to the rising generation that they will be thus favored. This may look somewhat discouraging to the young or the novices now before me, but the consideration or appreciation of this startling truth should demonstrate to them as well as others the necessity of energizing all their powers and faculties. Only twenty years for the long anticipated joys of professional life; only twenty years in which to make a fortune; only twenty years in which to make a name, a reputation; only twenty years to be a benefactor, to make the world the better for my having lived in it. Yes, these are pertinent reflections, and I indulge them with a degree of timidity, but at the same time I know, notwithstanding all that may be said, each one before me will take a hopeful view of his own condition and prospects, and will flatter himself that he will be fortune's favorite. "Hope springs eternal in the human breast."

But just here, while indulging in these rather solemn reflections myself, may I not be mistaken as to the train of thoughts that have arisen in your minds? Perhaps some of you, in cogitating upon my calculation, are saying mentally that these old fellows, these ancient individuals, who have outlived their double ten years, ought to be out of our way; you ought to have stepped down and out long ago. Well, then, if my genealogical proposition has had only this effect, we had better consider another matter; perhaps some rambling thoughts about this Society, or some observations upon men and events. This Society, as I am informed, was organized about forty-five years ago. Coming to St. Louis in 1840, it was my privilege to know and to become acquainted with the men who had founded it. In memory I now picture them, much as they appeared to my youthful eyes. Several of them were, even at that time, old in service, and had been the pioneers in the profession. Beaumont, Sykes, McCabe, Hardago Lane, Wm. Carr Lane, Farrar, Merry, Adreon, Pultae, Tiffin, White, (one survives, and I feel honored that he is now before me—Dr. Meredith Martin, the President), are as vividly before my mind's eye as though I had seen them but yesterday, and I believe any who remember them will bear testimony with me to their worth.

From that time to the present I am confident they have not been surpassed in the elements of character or the qualities that serve to make the true man, the polished gentleman, and the useful and accomplished physician. I have often thought it would be exceedingly interesting and instructive to have at hand a truthful and impartial biography of those men. I cannot, however, let the opportunity pass without a few words in regard to one or two of our associates, though no word of eulogy from me is necessary or called for. The name and fame of Beaumont should be kept in mind by the members of this Society. His reputation was world-wide, and even now the reports of his experiments, observations and conclusions are found in every work on physiology. In 1850, in the City of Paris, I was introduced to the then greatest of living surgeons, Velpeau. Immediately upon learning that I hailed from St. Louis, he said: "Ah! you have there Dr. Beaumont." I well remember the enthusiasm with which he spoke of him and of his discoveries. For many years he was the leading surgeon of our city, and stood high in medical and practical competency. He is now most affectionately remembered by the older families of our town, not alone professionally, but for his amiable and manly social qualities.

It was our fortune also to have as an associate one whose memory should be cherished by all who are capable of appreciating the doctrines, or rather the great fundamental principles of physiology, which he formulated. I allude to Prof. John Waters. The grand idea that in tissue disintegration, retrograde metamorphosis, we have the life force, was first definitely or distinctly elaborated, and given form, and made practical by him. In failing to place upon record the debates upon this question, in which Hammer and Pallen (who have departed) and others now living participated, a great loss to our literature has been sustained. Many of you remember the sharp contests upon this principle, as its application to physiological and pathological processes, which were then discussed, and the clear, methodical, and convincing manner in which Waters presented and demonstrated his theory. He died comparatively a young man. It has been said, "Whom the gods love die young." He was not, however, without faults. A hint is sufficient, and this only as a warning: He was his own and his only enemy. Dr. Workman says, "That to say a man was faultless, would be to libel humanity,

for lifeless are the faultless; but let us, as in the words of the sweet poet, guard thus his memory :

“ When cold in the earth lies the friend thou hast loved,
Be his faults and his follies forgot by thee then ;
Or if from their slumbers the veil be removed,
Weep o’er them in silence, and close it again.”

I might with propriety remind you of many others full as worthy of mention ; many of them have passed away so recently that we almost fancy, at times, we see their forms and hear their voices. Who could desire a more honorable professional ancestry? In the genealogy of families the reputation of an honorable ancestry is ever a matter of pride, and is a stimulus and an incentive to those in whose keeping the good name rests to transmit the boon, unsullied, to those that come after. Just in that light do I look upon our professional lineage, and just so do I regard it as our duty to guard and sustain it as a sacred trust.

How, then, do we stand to-day? My answer will be brief. I think I am justified in the belief that at this time our institution manifests greater vitality than at any former period, notwithstanding the predictions of a few who have become lukewarm in its support. Prophets of evil always abound; such individuals but little know the strength of this stalwart corporation. I have heard this cry again and again, and I believe I understand its import—its echoes soon die away; but we have had civil wars and other perils, and some of them certainly should never be forgotten. I have only time to notice one of them, and nobody will be hurt by a reference to its history. Do any of you remember the Mary Dugan war? It was almost equal to the famed wars of the Roses, though the odors might not be very sweet. Most of you were born too late; it is only your misfortune that you were not permitted to enjoy that superlative farce, in which there was about as much of serio-comic acting as any reasonable man could wish to see in a lifetime. I cannot, on this occasion, give you by any means a full history of the affair.

This Mary Dugan had a tumor in her groin, which was mistaken for a something which it was not. This tumor was cut, and what Mrs. Dugan had eaten for breakfast came out through the opening, and for four years the half-and-half substance, digested and undigested pulp, persisted in flowing from this unnatural or preternatural fissure; thus leaving nearly one-half of her

alimentary tube a useless cavity. At last, alas! poor Mary died. While she lived she was regarded as an object of wonderful interest and attraction, not only by the faculty, but by the community, for the matter took the wings of the wind. Pity and sympathy for her forlorn condition moved the hearts of the charitably disposed, and everything possible was done for her bodily comfort; but the battles among the doctors eclipsed all other considerations. One party maintained, and by speeches and learned essays proved incontestably, that this was an undoubted case of the then almost unknown disease, *typhlo-enteritis*. Another party as stoutly argued that it was only an ordinary case of femoral hernia. For four years the contest raged, and pamphlets with supplements and appendices were scattered about like falling leaves. For four years the air was filled with threats of personal chastisement, and often a rumor of *pistols for two* was proclaimed as part of the programme. It seemed somehow unaccountably strange that men thirsting for each other's blood could not in this long time find the victims they were so eager to slaughter, but so it was.

Mary, in the meantime, manifested an enterprising spirit. It occurred to her, or more likely was whispered in her ear, that she might fill her pockets, just in proportion to the vacuum made in her bowels. She brought suit for \$5,000 damages. She went up town and down town, and showed her typhlo to every doctor and to anybody who wished to see it. This was Mary's little lamb, but—

“Its fleece was *not* as white as snow,

But everywhere that Mary went, the lamb was sure to go.”

(I hope the children will pardon me for making this use of their beautiful poem.) The doctors talked typhlo-enteritis, and so did all the old women. In the legal investigation at least two dozen doctors were on the stand; in fact, but few other witnesses were needed. About one-half were for typhlo, and the others favored the hernia theory; but the jury, in their wisdom, or rather in their confusion, decided against the unfortunate plaintiff; so she failed to fleece the doctors, as she anticipated.

As before stated, Mary died, and wisely willed her body to the party who had befriended her, and quickly did he avail himself of his opportunity. “Eureka!” shouted Dr. W., and “I told you so!” exclaimed forty doctors at once; “femoral her-

nia, and nothing else!" What a victory for one side, and what a crushing defeat for the other! All the actors in this drama have gone down, and their souls, we trust, have gone up; and it is to be hoped that they have long since arranged all matters with Mrs. Dugan, and that she is receiving compensation for all she suffered here.

As a climax to this affair there appeared in one of our dailies a large wood-cut, showing a balloon, surmounted by a woman's head; the basket below contained three well-known doctors, and clinging to the ropes below were four others, trying to prevent the ascension. Beneath the cut was a short poem, headed: "Grand Medical Ascension! The Celebrated Balloon, *Typhlo-Enteritis!*" Far off in the clouds was the temple of fame. Here is the poem:

"Come all ye mystic medicos,
And stand up in a row,
Who, seizing Mary's petticoats,
Aloft to fame would go;
And you ye grudging grumblers, who
Would strive to keep 'em down,
Let go your strings and borrow wings,
To soar to like renown.

"Entire obliterations oft
A second time will show,
And "Ingulnal" and "Femoral"
Are different, we know.
Notes, "Supplements," "Appendixes,"
Of course are understood;
The case, still pretty much a case,
The quarrel, clear as mud.

"Now, whether in the "crural arch"
The scalpel in was sent,
Or under Poupart's ligament
With sad effect it went—
Enlighten, Lord, the Faculty,
Who only are in doubt,
Whate'er the case, 'tis they, alas!
Have let their humors out."

Well, so much for this remarkable quarrel. Others equally interesting or farcical, and some almost tragical, could be detailed, but we forbear. In view, then, of the past and the present, I am inclined to predict for our Society a perpetuity, a continued existence, a bright future; that it will not cease to be what it is now,

the center of attraction for those of our profession who appreciate the grand truths of science, or who are inspired by the spirit of progress. It has for a long time been apparent to me, and I do not believe I am mistaken, that those who have availed themselves of the advantages of this Society, are in consequence more useful, more practical, and in every way better qualified for the duties they are required to perform than others. This thought was often expressed by our late colleague, Prof. Linton, and he often denounced in strong terms those, especially young men, who failed to appreciate such advantages.

The benefits derived and conferred by a free interchange of sentiments and experiences are of almost incalculable value and importance, and should be properly estimated by all, and especially those who are ambitious to stand in the front rank of professional service or who desire to be esteemed and respected by the community. The merchant or tradesman who never goes on 'Change, whose associates are only those with whom his pecuniary interest brings him in contact, who day after day and year by year confines his thoughts to buying and selling his goods or his wares, his mind all the time upon percentages, is a very different being from one who associates largely with others of his calling. There is a marked difference in the looks and actions, in the modes of expression, in the address, in the social qualities, in fact the whole bearing of these individuals. The questions and discussions which arise in the assembly serve to sharpen the faculties, to animate and develop all the powers of the mind, to make the man a better citizen and better in all the relations of life.

As a notable example of grand results accomplished by concert of action, I desire to refer to the organization known as the Teachers' Association, connected with the Public Schools of our city. At the suggestion of one of our sagacious Superintendents, the lamented Divol, this society was formed many years ago. It numbers now some six hundred members; attendance and membership are made compulsory; everything relating to principles and practice in the art of teaching is substantially impressed upon the minds of all, and those who by want of capacity or other circumstances, fall short of an established grade of competency are dropped from the lists. To the practical workings of this society we may attribute, in great part, the excellence and efficiency of these schools. A few years since, when

Bancroft, the historian, and one of our most ardent educators, had made a thorough inspection, I heard him remark, "Boston must look out for her laurels."

If, then, in associations such as I have mentioned these advantages are realized, what may we look for in a profession which deals with human health and human life, and whose ministrations reach and compass very many of the interests and principles of social economy? I assume that as a consequence of, or immediately growing out of associated labor, in personal influence, in the contact of mind with mind, in exchange and discussions of views, sentiments and doctrines, there is a power exerted—educational, may we not regard it?—preparing us for our duties and responsibilities, that can come from no other source; and, more than this, there is a cultivation of the kindly and sympathetic qualities of our nature that cannot be too highly estimated. In the presence of each other, generous and honorable impulses flow and overflow and find expression. One may entertain high personal esteem, reverence and regard for those of his grade or class, even without intimate relations or acquaintance, but when these sentiments find actual expression, known to come from the heart, how salutary is the effect. We need always demonstrations of friendship or affection to make us feel their full force.

In considering this subject there is another point that appears to me of great importance. Specialism is now the order of the day, and has produced a remarkable change, or we might say a revolution in the old and long established order of things. A very large proportion of the physicians of our city are now practicing specialties, and the indications are that the time will soon come when the general practitioner will be left behind, a thing of the past, an old foggy. A great danger is that the specialist will neglect general culture and become a man of one idea. If this is true, how manifest is it that in the Society is found the greatest safeguard; it is the only place where the specialist meets under the fairest circumstances and conditions, not only those of his own class, but those engaged in other departments, as well as those who still pursue the beaten track. Here all meet as equals, on common ground, for free inquiry, discussion or criticism, and each and all are incalculably benefited. The acquired knowledge of each becomes common property, and here, too, there is no restraint or embarrassment tending to make us feel ashamed

of an honest difference of opinion or antagonism of practical judgment. The case is widely different where our judgments or sentiments are subjected to the tribunal which a censorious public always exercises, or where our declarations and professions must be made to accord with our financial interests or reputation.

And now, having said so much upon the subject of specialties, may I ask your indulgence in a declaration of my private opinion in reference to this innovation. I do this certainly with a degree of timidity; I am free to confess that I entertain the conviction that this departure from the long tried and established usages is, to say the least, fraught with many dangers. Specialism in medicine is not an unmixed good, and it is not an unmitigated evil. It is a remarkable compound of good and evil. In the main, viewing it in the abstract, it is inherently and intrinsically good; it is made an evil by extrinsic influences; and these are numerous and varied, and are of such a character as to lie almost beyond the reach of corrective measures. Perhaps some may say that whatever is wrong in the system, will cure itself; but do we not know from long observation and experience that reformation is very slow in all cases where the self-interest, the condition, the circumstances of a large and influential class are at stake? I am then constrained to say, taking the whole field into view, that I believe the introduction of specialism into the profession has produced more of harm than good, as far as the welfare or interests of the people are concerned; and in forming this opinion, I have done so after a long and close observation of its *practical working*; and here is, or should be, the grand test in all matters that concern the well-being of the community, whether it be in *medicine, religion, politics, social economy*, or anything else. I believe a sentiment against this order of things is growing, and will ere long manifest its strength. I have indicated one of the sources from which a great danger to the interests of the people comes, and for fear you may think me bold and presumptuous in my expressions concerning the motives that actuate men, I quote the language of one of the clearest minds of the time, Henry Maudsley:

"The practical religion of the day, the real guiding gospel of life, is money getting; the professed religion is Christianity. Now, without asserting that riches are not to be gotten by honest industry, it may be maintained that the eager passion to get rich—honestly, it may be, but if not, still to get rich—is often

inconsistent with the spirit of the gospel professed. The too frequent consequence is, that life becomes a systematic inconsistency, or an organized hypocrisy. With a profession of faith that angels might adopt, there is too often a rule of practice which devils might not disdain."

It is this religion of money getting that overrides and stamps out much of the good that otherwise might result from a well regulated and systematized division of labor. How true is the saying that "The love of money is the root of all evil." Specialism has not yet got its growth, and we have yet to see what fruit it will bear in its maturity. It has grown rapidly, too rapidly, as we think, to make a tree that "shall be for the healing of the nations." The grand oaks are always of slow growth. At the present time a very large proportion of those who are fully committed to specialism are men who have for years had large experience in general practice. But it will not be so much longer. Of the thousands now in our medical colleges, I have no doubt more than one-half are directing all their efforts to preparing themselves for some one of the subdivisions of practice; and why not, when they know that the specialist can get rich in one-half the time and with one quarter of the labor they would otherwise have to perform? Our schools and colleges are overcrowded, and there is, as stated by a sagacious writer, "in this country a plethora of education that is squeezing out the life-blood of the nation." The time was, and that only a few short years ago, when we entirely discountenanced and almost persecuted specialists. Now we not only recognize them, but in every way treat them as physicians, and with honor and affection. This is all right in principle, but should not there be a limit somewhere, and should not that limit be one of education and professional qualification in the broadest and most comprehensive signification of those terms? This is not the time to elaborate these questions, but it is well to look forward and see whither we are drifting.

In my view, no man can be, in the true sense, a physician unless he is trustworthy in the treatment of the whole range of diseases that afflict the human body. Colles wrote his book to establish the doctrine of the constitutional origin of local diseases. Has this doctrine turned a backward somersault, and are constitutional diseases of local origin? It is a consoling reflection that at the present time, and in this Society, our specialists are, with-

out exception, men true to the profession; and I am confident they will join heart and hand in all measures in which truth, science and philanthropy are the guiding principles. Let me be fully and fairly understood. I stand committed to the idea that there is a vast amount of good in the system of specialism as it now exists, but that it is high time that the medical profession, medical societies and medical colleges work in concert, that they may utilize all there is that is valuable, and at the same time counteract all that tends to revolution and anarchy.

I think well of the gentleman you have elected as my successor. I ought to think well of him, for I taught him anatomy, and I believe I did it well and thoroughly, and I desire to share a part of the honor of making him a good and useful man in the profession. But how strangely matters and things turn about! I now sit and listen to him on this floor, and feel as the Apostle did at the feet of Gamaliel. Well, this verifies what Dr. Watts says in one of his hymns. He predicts a good time coming, "when men shall grow wiser than their teachers are, and better know the Lord."

And now, gentlemen, fondly trusting that I have not unduly trespassed on your valuable time, permit me to tender you my grateful thanks for the kindness and consideration you have uniformly manifested towards me during the period in which I have had the honor of presiding over your deliberations.

SATURDAY, JANUARY 24, 1880.

Cancer of the Os Uteri.

DR. E. H. GREGORY — I will report a case that happened to-day. I was consulted in a case of cancer of the os uteri. There was apparently a distinct belt between the morbid growth and the insertion of the vagina, and it was thought a proper case for extirpation. I succeeded in placing the chain of an ecraseur between the insertion of the vagina and the disease, and removed it. Now somebody here may think I am implicating myself in some bad surgery, but I think these cases had just as well be reported. I succeeded in removing the mass, and I thought very

properly, but on examination I found that about two-thirds of the vagina was separated from the uterus, and I could put my fingers into the abdominal cavity.

DR. W. COLES (*Sotto voce*)— It is not the first time.

DR. GREGORY— The Doctor says it is not the first time. No, it is the second time. He was present when the same accident happened once before. The point is this: Here is a space into which we can place a chain safely and divide the structures. I am sure the chain was placed in the groove indicated, not above it; simply above or beyond the disease. I don't think it was two lines beyond the disease, and yet this happened. The Doctor says it is not the first time. Perhaps it is well that I should report the other case also. The former case was one in which a tumor was removed. The patient lived a year or two, and died of phthisis. In the case to-day I succeeded in stitching the vagina and the uterus very satisfactorily, and late this evening the patient seemed to be in a very fair condition. Now, I have performed this operation a number of times. You must not suppose I always open the peritoneum; I have opened it twice, but to-day I am satisfied it was detached two-thirds of the circumference of the uterus. If I had used the scissors, as we ordinarily do, I should have cut away as with the *écraseur*. The *écraseur* draws the tissue in, and perhaps sacrifices more than the knife and scissors. I suppose that I should have opened the peritoneal sac with the scissors if I had attempted the removal of the tumor with that instrument. So there must be cases in which the vaginal portion of the neck is very short, and where the peritoneum reaches down, close around the lips of the os.

DR. F. J. LUTZ— Do we understand you to have removed the uterus?

DR. GREGORY— No, but I could have removed it without any trouble. But the removal of the uterus is a very serious operation, and certainly a great shock to the system, and I do not think that organ should be removed because the neck is involved in disease, for it is within reach, should the disease reappear.

DR. W. JOHNSTON— Have you kept a record of how many of those upon whom you have operated, live, and how many are dead? How long did they live, and what proportion died?

DR. GREGORY — I have no written record of the cases; I can remember two or three cases where, two years ago, I performed this operation, and the patients are still living. I make it a rule to make these patients visit me once or twice every two or three months. A lady from Illinois came once in six weeks; there is no sign of a return. The case reported to-day is no more unfavorable than that one.

DR. JOHNSTON — How many are dead?

DR. GREGORY — I cannot say; I acknowledge most of them are dead. I will mention another case or two, in removing these cancers. I remember removing a breast for cancer. The woman lived five years, and then died with brain symptoms.

THE PRESIDENT — The same accident which happened to you happened to Dr. A. J. Simm.

DR. GREGORY — I think it is only a matter of the number of cases that a man has. I am surprised so little is said of it in the books. If a man cuts off enough of them, he will meet with cases now and then where he will have accidents like the one that happened to me to-day.

DR. COLES — I have some curiosity to hear what explanation Dr. Gregory has of the anatomical condition of things that contributed to this accident. I am inclined to think that the disease itself had a good deal to do with the drawing of the peritoneum into close proximity to the os. I am watching a case in conjunction with a physician from Illinois where this condition is well marked. It would be a great risk to amputate the cervix in this case with the *écraseur*. Another point is, that in a large majority of cases of cancer of the uterus there is a tendency to flexion of the uterus in women who have borne a number of children.

DR. GREGORY — It has occurred to me that the portion of the vagina inserted in the neck was made friable by the disease; it is barely possible the vagina, at its insertion in the neck, may have been softened by cancerous infiltration. I have seen a number of cancerous breasts smaller than healthy ones. A great pathological feature of cancer is stroma. After it is formed it contracts, and it draws the tissue not implicated. The contraction characteristic of stroma is one of the most interesting features to the conservative surgeon, because it is supposed the contrac-

tion in this stroma tends to strangle the vessels. The cicatricial contraction tends to cut off the flow of blood to the epithelial material. I have declined to operate where the contraction was a marked feature, and the party has reached a fair old age. I declined because I felt that the stroma was controlling the circulation of the cancer—that there could be very little multiplication in the new material that formed the new cancerous era, as the marked growth of cancer depended on the multiplication of the cell structures. The contraction placed in abeyance this multiplication, and consequently this increased growth is prevented.

DR. A. C. BERNAYS—Some time since Dr. Saunders informed the Society that in Vienna the peritoneum had been opened thirty times in succession while amputating the vaginal portion of the womb, and that all these cases recovered. While I was there I heard persons speak of such cases, and the Professor of Gynæcology, Henry Braun, thought it was not wrong or dangerous to open the peritoneum.

DR. JOHNSTON—I have no doubt that Dr. Gregory performed the operation with all the skill it is admitted he possesses. I have no doubt that my young friend, who has been in Vienna, did not remain long enough to see whether they recovered or whether the grave covered them. Dr. Gregory acknowledges that the grave covered many of his cases. Some of the profession are indoctrinated in the German pathology, as taught by Virchow, that disease has its origin in a local cell. Is that a fact? John Simon has demonstrated that the trouble lay in the previous condition of the system.

DR. GREGORY—I wish to call attention to the fact that in the two cases reported the patients are yet living, and the result has justified the operation.

DR. G. HURT—I take issue with Dr. Johnston in regard to the origin of cancerous and other malignant growths. There is a great difference between a predisposition to a disease and the disease itself. The diathesis is not the disease at all; the microscope does not show, neither does pathology show it. There is no poison in the system to constitute that predisposition, and the eruption of the disease itself at its first appearance may be due, especially in the case of cancer, to local irritation; it may also be

due to mal-nutrition, and the mal-nutrition may stand just behind the local irritation, which may fall upon some particular organ or tissue.

DR. J. S. MOORE — I am of the opinion that cancer is always dependent on a constitutional diathesis; it requires constitutional treatment. I understand also that the cancerous diathesis and the tuberculous diathesis exist in different individuals in different degrees of strength. A person may be born with a tuberculous or cancerous diathesis and yet never have tuberculosis or cancer. Sometimes the diathesis is aided by some local cause. A woman may have the cancerous diathesis very weak, and she may accidentally receive a bruise. If the injury is operated on before the cancerous matter is absorbed into the system she may be permanently cured, but if it be neglected, the cancerous juice will be absorbed and developed locally.

DR. HURT — I agree with the last speaker, that a certain diathesis is required for cancer. I will go further, however, and say it is not of necessity absolutely hereditary. I am almost disposed to assert the transmutability of one predisposition into the diathesis of another predisposition.

DR. COLES — The practical question comes up as to the course we would pursue in such cases. I know of two or three cases in which I am satisfied the lives of the patients were saved by the means of an operation.

DR. PREWITT — This is a constantly recurring question—the constitutional or local origin of cancer. It involves a practical question. As one of the speakers stated, there is a diathesis that produces cancer. Sometimes the cancer returns after an operation, because of the infiltration of the tissues. Many cancers have been removed and never returned, because the local manifestation has been got rid of.

DR. BERNAYS described at some length the course through which a cancerous disease usually runs before it ends in death, and advised the early removal of cancerous growths before the system has become infected from the local disease.

SATURDAY, JANUARY 31, 1880.

Epithelioma of the lids of the Right Eye.

DR. A. D. WILLIAMS—Twelve months ago I cured a case of epithelioma of both lids of the right eye by electricity, or what is called the electrolytic action of electricity. As no one in the discussion during the last evening alluded to that method of treatment of cancer, I thought I would report this case this evening and have it go on record on the heels of that discussion.

An old gentleman, from Southern Kansas, about twelve months ago came to me for an affection of the right eye, which he had had for some considerable time. I found an epithelioma of both lids. The lids had about one-half sloughed away by the cancerous ulceration; it had attacked apparently the edges of the lid about the middle and had extended upward and on either side, so that about one-half of the surface of both lids were destroyed by the disease. The extreme corners of both lids were intact; the ulcer extended into the substance of the lids in a semi-lunar form along their central portion, it being deepest at the middle of both lids. The tarsal cartilages were nearly destroyed. The cancer had extended along the palpebral conjunctiva, until it had passed across the *cul-de-sac*, and reached the surface of the eyeball, so that the ocular conjunctiva, also, was involved in the process. The *cul-de-sac* was obliterated by the contraction, so that when the remnants of the upper lid were pulled away from the ball, a band of the conjunctiva, infiltrated with cancerous material, could be seen stretched across to the eyeball, showing the cancerous process had actually reached the eyeball through the conjunctiva.

The cornea had sloughed sometime previous to his visit to me; the eyeball being partially exposed by the extensive destruction of the eye lids, the atmosphere had caused the sloughing of the cornea, which of course made him completely blind in that eye. The ulceration was still going on quite rapidly when I saw him. I asked my friend Dr. Dickinson to see the case with me, and he on examination concurred with me in the diagnosis, namely, that it was an epithelioma. The eyeball was removed while he was under the influence of chloroform. This was

done to save him from intense suffering, and in order to be able to treat the cancerous trouble more perfectly. After I removed the eyeball, I applied various escharotics, such as chloride of zinc, chromic and carbolic acids to the cancerous granulations, with the effect, apparently, of increasing or stimulating the trouble. I concluded that as nothing was to be gained by their use, I would try the effect of electricity. I devised an electrode. It consisted of four ordinary sewing needles stuck through a cork, so that they were parallel to each other, and their points were on a level. Between the blunt ends of the needles, thus fastened in the cork, I passed the end of the negative wire from the battery, and wrapped silk thread around the whole, so as to bring all the needles in contact with the wire, and at the same time to insulate them, so as to enable me to handle the electrode thus made without receiving the electrical charge. I inserted the points of these four needles into the cancerous granulations deep enough to reach what I supposed would be healthy flesh. I completed the circuit by having the patient hold in his hand the wet sponge of the positive pole. I used an eight-cell galvanic battery. After closing the circuit, I allowed the current to run for a few moments during each insertion of the needles, say from one to three minutes. The electrolytic process went on during the time the circuit was closed. I continued the needles in one place until the cancerous granulations seemed to be cooked, or changed completely, and then I removed them to another point, and so on until I treated the whole granulated surface. I was careful to apply them to every point where I could see cancerous granulations. During the time that the needles were in contact with the flesh and the current was allowed to run, a white foam would come up around the needles. This gas was of course hydrogen escaping from the decomposition of the watery portion of the flesh.

I treated the case in this way for several days in succession. Each time I was careful to treat all the cancerous granulations I could see, always letting the current continue with each successive insertion of the needles, until all the granulations were apparently cooked. On the tenth day, after I began this treatment, the old gentleman was compelled to return home. Before he left, the granulations had mostly disappeared. After he returned to Southern Kansas he had no further trouble from his eye. Suppuration from the conjunctiva, and from the edges of the lids ceased in a short time, and the ulcerated surface con-

tracted and cicatrized, so that he had no further annoyance from it.

About six months after the above treatment, I was in Southern Kansas, and I purposely called to see him. I found him suffering with a low form of typhoid fever. That was about the first of last August. It was a mild attack which he had had several weeks before I saw him. At that time there was no trace of epithelioma on the lids, or on the conjunctiva, or any where else. The lids had contracted and cicatrized, so there was not a trace of the cancerous process visible. That was the first case that I have treated with electricity, and I think the result was quite flattering. I do not propose it as a universal remedy for epithelioma, but it certainly did well in that particular instance.

DR. PREWITT — Did you apply it only to the granulated surface?

DR. WILLIAMS — Only to the cancerous granulations. I stuck the needles down, say a quarter of an inch, into them, and allowed the current to run one to three minutes, until the granulations at that point were apparently cooked; then I moved the needles to other points, and so on, till I made the application to all the cancerous surface.

PRESIDENT MAUGHS — Do you know of any other cases that have been treated that way?

DR. WILLIAMS — I got the idea from Althaus' work on the use of electricity in affections of that kind, but I do not remember that he reports a case of epithelioma cured in that way.

PRESIDENT MAUGHS — Inquired if Dr. Gregory had had any experience in that way.

DR. GREGORY — I have no experience in the use of electricity in such cases. I reported a case here last Saturday upon which I believe I performed an operation, and I am glad to say that the woman has recovered. There were no bad symptoms. In this case I used ether instead of chloroform, because it is generally considered to be a safer remedy than chloroform; this is the popular and professional belief, and I used it for that reason. I prefer chloroform. I have used chloroform twenty-five years, and I have had but one mishap. I mention it for the reason that the

patient was a colored person. I have read that colored people were more frequently the victims of chloroform than the white race. Whether that is true or not, I am not prepared to say.

DR. WILLIAMS — The professional pendulum has now commenced to go in the opposite direction in regard to the comparative safety of ether and chloroform. It strikes me that physicians now think there is as much danger from ether as chloroform. In sympathy with the professional feeling I began the use of ether. I disliked its effects, and now give chloroform regularly. I think my patient is about as safe as when I use ether, and history will show as many accidents happening from ether as from chloroform.

DR. GREGORY — I sympathize with Dr. Williams, and hope I will be permitted to use chloroform; I certainly prefer it as an anæsthetic.

DR. PREWITT — As to the case reported, by Dr. Williams, if his diagnosis is correct—and I would not call it in question—it would certainly be a remarkable effect from the action of the battery. I understand him to say he applied the needles only to the ulcerated surface, and to a moderate depth. Unless the electric action passed all through the growth, it could not be expected that the action on the ulcerated surface would cure epithelioma. In these cases the difficulty is in getting rid of the infiltrated tissue about the tumor.* When we cut it out, we often find that there is infiltration beyond the line of incision. If electric action on the surface is to cure these things, the effect must extend far beyond the surface acted upon by the means. We would hardly expect that to be the case with the action of the battery as he details its use. In this case it is said to have been sufficient, not only to have destroyed the epitheliomatous growth, but it should have acted on the cells for some distance beyond. It seems remarkable such results should follow. I doubt exceedingly whether we should have any such results in other cases.

DR. WILLIAMS — I will say that in pressing the needles into the granulations, my object was to pass them through the granulated tissue, and deep enough to have them reach what I supposed to be healthy tissue. There was no tumor; it was an open, sloughing sore. Of course I did not expect such a result. I ex-

pected he would have trouble when he got home, but he did not. When I saw him it had healed nicely. So far as the diagnosis is concerned, I believe it to be a case of epithelioma, and Dr. Dickinson concurred in this opinion.

DR. C. H. HUGHES—In the *Alienist and Neurologist* for January may be found an explanation as to the method of the action of electricity in reducing morbid growths. It is a translation from the *Gazette Hebdomadaire* on "the Effects of Cephalic Electrization," by Dr. Ch. Letournian. Doctor Laborde assisted him in the experiment on a kitten a month old, in which the cranial wall was still very thin, and was quite easy to cut; a considerable portion of cranium was cut out on the left side. The dura mater being so exposed it was very easy to see with the naked eye, and still better with a magnifying glass, the arterial and venous branches which ramify upon the surface. They proceeded then to the electrization, making use of the small portable pile for continuous current of MM. Onimus and Brown. This pile contains eighteen elements, and they took care, by the aid of a galvanometer, introduced into the circuit, to assure themselves that the passage of the current was effected regularly. During all the duration of the experiment, the positive pole was placed behind the right ascending ramus of the inferior maxilla, and the negative pole upon the anterior cranial region above the eyes.

"Ten or fifteen seconds after the closing of the circuit, the fine arterial branchings of the dura mater became less and less visible, and a little later the venous branches themselves became pale. At each interruption of the current the anæmia increased for an instant, then the vessels resumed, little by little, a little larger caliber.

"The experiment repeated a number of times gave always the same results, determined successively by Doctors Duval, Laborde, Condereau and themselves. The dura mater of the right side having been denuded in its turn, the experiment was repeated, which, on this side, again gave the same results. They pursued the experiment, cutting out on the left side a portion of the dura mater. The pia mater being thus exposed, and its vascular branches, arterial and venous, being very visible upon the gray ground of the cerebral substance, the same observations were made upon it. There, also, we could obtain at will, contraction of the vessels.

"The experiments just related," they go on to state, "added to facts cited in the commencement of this paper, *put it beyond doubt that it is possible, even easy, to produce in man a temporary anæmia of the brain, by means of suitable electrization* ; but the therapeutical bearing of this fact should not escape the physician. *For this temporary anæmia can, without the least inconvenience, be renewed a great number of times daily if one wishes* ; and our personal experience permits us to affirm that, with a little persistence, one may triumph so over various congestive states of the brain, manifesting themselves either by the simple depression of the intellectual faculties or by psychical disorders of varied nature."

In support of the preceding statement they cite a typical case of chronic congestion of the brain, which yielded to electrization repeated persistently, but which we omit. I have been in the habit for several years of using electrization for the purpose of arresting cerebral hyperæmia.

DR. DICKINSON — How do you apply the galvanism ?

DR. HUGHES — In various ways, the positive pole to the left temple and the negative to the right occipito-vertebral junction, and *vice versa* ; sometimes pass it transversely through the temples, though generally from the seventh cervical vertebra following the cervical sympathetic in the brain. The opening and closing of the circuit so acts on the vaso-motor system as to contract the vessels and diminish the morbid activity resulting from cerebral hyperæmia. If you can arrest morbid growth by strangulating it with a ligature, you can arrest it by the use of electricity.

DR. W. DICKINSON — I had the pleasure of seeing the case reported by Dr. Williams, and I have no doubt myself of the character of the disease. The result certainly exceeded my expectations. I have had three cases of epithelioma, located on the globe. The first case was six or seven years ago ; it was limited to a small space, and it disappeared. In the second case I removed the diseased part with a knife ; what remained I cauterized. The patient left the city, and at the expiration of a year, returned. It had re-formed a little, but not so much as at first. I pursued the same course, and I have written to him to know the result. There is no regeneration of the mass. The third

case was one I treated in a similar manner, removing what I could; by that process it was diminished one-third. It returned on account of its regeneration, and on this occasion I had the pleasure of being assisted by my friend, Dr. Gregory. The remedy adopted was excision and the patient recovered.

Edema of the Epiglottis.

DR. WESSELER — Presented a pathological specimen, and said: I have a case to present of œdema of the epiglottis. The man was æt. 34 years, German, unmarried, and of very spare build. He had been in the Alexian Brothers' Hospital previously. At the time he was admitted he was very much emaciated. He was, as a rule, unable to retain food, and when his stomach did retain anything it was quickly passed away by the bowels, undigested. He was discharged in September, and came to my office about New Years, asking to be readmitted. He had been unable to do labor, and had a cough and sore throat. He had been a member of a singing society, and lost his position on account of inability to sing, suffering from laryngitis. There was considerable trouble in his larynx. Last Sunday he was about. On Monday morning, on visiting the hospital, I found him in a dying condition. He was suffering very much as a child dying from croup; had all the symptoms, and had the distress that children have when they die of croup. Next morning he was dead. I have looked through various works on practice, and have read that the case is fatal in almost every instance, and Niemeyer says that blood-letting, blistering, purging and fomentations, applied as they generally are, are of no avail. Although tracheotomy might be performed, there is little to be hoped from it. In these cases the constitutional disturbance is such that the patient usually will not recover.

[A recess was here taken, and the members of the Society examined the specimen under consideration.]

PRESIDENT MAUGHS requested Dr. Lutz to state what was his experience in the case.

DR. LUTZ — My experience in this case was at the post mortem. The infiltration of the epiglottis is due to the inflammation of the larynx. As you have seen, two large ulcers are situated on both sides, above the vocal cords. The trachea is not involved. As a palliative measure, perhaps tracheotomy could

have been performed. The man suffered from tuberculosis, and had cavities in both lungs, and his hours were numbered. Only as a palliative measure would an operation have been justifiable.

Book Reviews.

THE CELL DOCTRINE: ITS HISTORY AND PRESENT STATE. BY JAMES LYONS, M. D., Prof. of General Pathology and Morbid Anatomy in the University of Penn., etc., etc., 2d Ed. Lindsay & Blakiston publisher, Phila., p. 199. 1879.

This is a very interesting and readable book, in which we have presented a very clear statement of the views of many microscopists and pathologists in regard to the origin, position and function of the cell in living organisms. The general reader will find here all that has been written on the subject, which it is important for him to know, and after he has bestowed as much study on these pages as they deserve, he will find himself much more familiar with the subject than when he began it. We feel that we cannot too highly commend the work to those who desire to know a good deal about the cell.

The cell is now known to play a most important part in living organisms; and what we have in Prof. Lyon's work will serve as a solid basis on which to stand to take a further and wider view of the Cell Doctrine. The cell is certainly the basis of a rational view of Histology; and it is now an almost self-evident truth that the origin, structure and function of the tissues cannot be well understood without a clear view of their relation to cell-organism. The tissues are certainly the result of the differentiation of cells; but just how this differentiation takes place, or on what ground it is to be accounted for, has not been explained by any of the writers quoted in this work. It is certainly true that all the different tissues were potentially present in the fecundated germ-cell; but what is the cause of the differentiation observed, the author has not explained, nor, indeed, suggested any rational view. This may not have been within the purpose of the work, yet the subject is one of such importance as to merit some consideration. The work should be in the hands of every physician.

H. CHRISTOPHER.

HIGIENE DE LA VISTA. Por el Doctor D. J. SANTOS FERNANDEZ. Obro prennada por la Real Academie de Ciencias de la Habana, en 1875; aumentada, reformada y publicada baja la direccion del antor por D. Elisidora Arias Gago, Médico Militar. [Habana: Le Propaganda Literaria, O'Reilly, num. 54, 1879. 16 mo.; pp. 272.]

HYGIENE OF THE EYESIGHT. By Dr. D. J. SANTOS FERNANDEZ. Prize Essay, presented to the Royal Academy of Medical Sciences of Havana, in 1875; enlarged, revised, and published under the direction of the author, by D. Elisodoro Arias Gago, Military Surgeon. [Havana: The Propaganda Literaria print, No. 54 O'Reilly street, 1879; 16mo.; pp. 272.]

This little work, written by the editor of the *Cronica Medico Quirurgica de la Habana*, is one which ought to be translated into our tongue, as it would certainly find a large number of readers. It is terse and clear, and embraces a large and varied number of subjects connected with the care and preservation of the eyesight. Beginning with the eyesight in childhood, he passes all the different phases undergone till glasses are used. The relations of trades are discussed, as also the effects of food, drink, and the passions. The chapters on spectacles and spectacle frames are interesting, as well as that on opera glasses. The precautions to be used by those employing artificial eyes is the last and not least useful chapter. This is followed by a bibliography of the subject.

DR. A. H. OHMANN-DUMESNIL.

PROCEEDINGS OF THE ASSOCIATION OF MEDICAL OFFICERS OF AMERICAN INSTITUTIONS FOR IDIOTIC AND FEEBLE-MINDED PERSONS. Sessions: Syracuse, June 8-12, 1878; Lincoln, May 27-30, 1879.

These proceedings make a good showing and indicate progress. At the two sessions a number of excellent and instructive subjects were presented. Dr. Shuttleworth discoursed on the subject of intemperance as a cause of idiocy; Dr. Fletcher Beach, on temporary loss of speech from shock; Mrs. C.W. Brown, on the offspring of first cousins; Dr. Seguin, on recent progress in the training of idiots; Dr. C. T. Wilbur, on the relation of speech or language to idiocy; Dr. H. M. Knight, on internal hydrocephalus, and Dr. Isaac N. Kerlin, on juvenile insanity. After which follows "statistics of the work before the people and legislatures," showing altogether, very satisfactory progress.

The proceedings were throughout interesting, and all the papers creditable.

It is gratifying to see the feeble-minded in the care of such able-minded men.

The superintendents of the institutions of the idiotic and feeble minded possess a love for psychical investigation, coupled with an earnest philanthropic spirit.

C. H. HUGHES.

Books and Pamphlets Received.

Transactions of the American Otological Society. Twelfth Annual Meeting, Newport, R. I., July 23, 1879. Vol. II, part 3. [Boston, 1879.]

Hints on the Antiseptic Management of Wounds. By Francis M. Caird, M. B. [Edinburgh, 1880.]

Treatment of Diphtheria. By Ira E. Oatman, M. D., of Sacramento, Cal.

The Answer of the New York Neurological Society to the Document known as the Report of the Committee on Public Health Relative to Lunatic Asylums. [New York, 1880.]

On the Medical Uses of Electricity. By George W. Balfour, M. D., F. R. S. E. London Eng.

The Regulation of Medical Practice by State Boards of Health, as Exemplified by the Executive of the Law in Illinois. By H. A. Johnson, M. D., Chicago Ill.

Paquelin's Thermo-Cautery, with Wilson's Arithmetic Shield, in Epithelioma of the Cervix Uteri. By H. P. C. Wilson, M. D., Baltimore, Md.

A Copy of a Circular Address to the Legislature of the State of New York. The Petition of the Undersigned Physicians, Lawyers and other Citizens of the State of New York.

A Protest Against Meddlesome Midwifery. By H. Gibbons, Sr., M. D. [Read before the San Francisco County Medical Society.]

Report of the Special Committee on Medical Education before the Illinois State Medical Society, at its Twenty-ninth Anniversary Meeting, held at Lincoln, May, 1879. E. Ingalls, M. D., Chairman Committee. [Chicago, 1879.]

A Clinical Lecture upon the Operation for Inversion of the Lower Eyelid. By F. C. Holtz, M. D. Reprinted from the *Chi-*

cago Medical Journal and Examiner for January, 1880. [Chicago, 1880.]

The Student's Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S. With eighty-nine illustrations. For sale by the Hugh R. Hildreth Printing Company, St. Louis; pp. 369; large 16mo. [Philadelphia: Henry C. Lea, 1880.]

Clinical Lectures on the Diseases of Women, delivered in St. Bartholomew's Hospital. By J. Matthews Duncan, M. D., LL. D., etc.; 8vo.; pp. 175. For sale by the Hugh R. Hildreth Printing Company, St. Louis. [Philadelphia: Henry C. Lea, 1880.]

Pharmacographia. A History of the Principal Drugs of Vegetable Origin met with in Great Britain and British India. By Friedrich A. Flüchiger, Phil. Dr., and Daniel Hambury, F. R. S. Second edition; 8vo.; pp. 808. For sale by the Hugh R. Hildreth Printing Company, St. Louis. [London: Macmillan & Co., 1879.]

On Loss of Weight, Blood-spitting and Lung Diseases. By Horace Dobell, M. D. Second edition; revised, enlarged and annotated; to which is now added Part VI, on the Functions and Disorders of the Liver; 8vo.; pp. 306. [London: J. & A. Churchill, 1880.]

The Sanitation of Small Cities; Soil, Drainage, Sewerage, and the Disposal of Sewage. By David Prince, M. D. [From the Transactions of the Illinois State Medical Society for 1879.]

Biennial Report of the Missouri Eye and Ear Infirmary, 1304 Chestnut street. From June 26, 1877, to June 26, 1879; act of incorporation. [St. Louis, 1879.]

Valedictory Address to the Graduating Class of the Medical Department of the University of California. By W. F. McNutt, M. D., L. R. C. P., Ed., etc. [Reprinted from the *Western Lancet*, December, 1879.]

The Second Annual Report of the Presbyterian Eye and Ear Charity Hospital, No. 77 East Baltimore street, Baltimore, Md. For the year ending December 1, 1879. [Baltimore: Innes & Co.]

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly means of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

— = THERMOMETER, FAHRENHEIT—JANUARY, 1879.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	29.0	39.0	18	39.0	63.5
2	37.5	57.0	19	48.5	59.0
3	49.0	64.5	20	42.5	45.0
4	55.0	7.0	21	36.5	51.5
5	51.0	64.0	22	34.0	36.0
6	54.0	61.0	23	29.5	43.0
7	51.0	61.0	24	32.0	48.5
8	48.0	54.0	25	37.0	56.5
9	52.5	62.0	26	38.5	58.5
10	33.5	49.0	27	39.0	62.5
11	45.0	66.5	28	34.0	58.0
12	34.0	41.0	29	32.0	4.0
13	29.5	42.5	30	31.0	55.5
14	32.0	48.5	31	25.0	39.5
15	28.5	43.5			
16	25.0	68.5	Means	39.0	53.6
17	41.5	58.0	Monthly Mean	45.8	

Quantity of rainfall, 3.71 inches.

MORTALITY REPORT.—CITY OF ST. LOUIS.

FROM JANUARY 11, 1890, TO FEBRUARY 7, 1890, INCLUSIVE.

Diabetes..... 1	Exhaust. f'm Lab. 4	Convulsions & Tris-	Apoplexy..... 6
Measles..... 4	Inanition, Want of 4	mus Neonatorum 19	Cyanosis and At-
Syphilis..... 0	Breast Milk, etc. 4	Hydrocephalus and 4	electasis.....
Scarlatina..... 3	Alcoholism..... 4	Tub. Meningitis. 4	Premature & Pre-
Pyæmia & Septicæ 3	Rheumat'm & Gout 1	Meningitis & En-	ternatural Birth
Erysipelas..... 3	Cancer and Malignant 9	cephalitis..... 5	Deaths by Suicide 1
Diphtheria..... 17	nant Tumor..... 9	Other Diseases of 7	Deaths by Accident 9
Membran's Croup. 10	Phthisis & Tubercu-	the Brain and 7	Deaths by Homioids 3
Whooping Cough. 2	losis, Pulmon. 68	Nervous System 7	Congen Deform'ty.. 18
Diabetes, Mell'us. 4	Bronchitis..... 9	Cirrhosis of Liver 7	Total Deaths from
Post Part. Hem'ge 1	Senility..... 28	and Hepatitis.. 7	all Causes..... 368
Typhoid Fever..... 10	Pneumonia..... 32	Enteritis, Gastro-	Total Zymotic Dis-
Cerebro Spinal Fe. 0	Heart Diseases 21	enteritis, Gastro-	eases..... 69
Remittent, Inter-	Other Diseases of 17	tonitis, and Gas-	Total Constitutional
mittent, Typho-	Respir'y Organs 17	tritis..... 11	Diseases..... 104
Malarial, Cong-	Osteomyelitis..... 0	Bright's Disease 2	Total Local Dis-
estive & Simple	Marasmus—Tubes 9	and Nephritis.. 2	eases..... 136
Contin'd Fevers, 9	Mesenterica and 0	Other Diseases of 1	Total Develop'tal
Puerperal Fevers. 9	Scrofula..... 18	Urinary Organs. 1	Diseases..... 26
Diarrhoeal Dises'all	Aneurism..... 0	Atheroma Arta. ... 1	Deaths by Viol'ce 12

CHAS. W. FRANCIS, Health Commissioner.

THE
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Original Contributions.

ARTICLE VI.

THE INFLUENCE OF FOUL AIR. By J. E. TEFFT, M. D., of Springfield, Mo., Late President of Medical Association of the State of Missouri.

The *Boston Journal of Chemistry*, states (Dec., 1879) editorially, that "There is no proposition so axiomatic or self-evident that a German cannot be found to dispute it." To show that to be true it cites the remark of Hebra, that many people bathe too much, and particularly to the recent experiments of Dr. Emmerich, of Munich, upon himself and others, tending to show that the drinking, whether in health or disease, of foul-smelling and putrid water is by no means so injurious as has been supposed, if indeed it be injurious at all. The *Journal* in conclusion says "What 'learned Dutchman' will now come to the defence of foul air? If the waters of the ditch can be proved wholesome, why not the gases of the sewer and the cesspool?"

The Boston editor has doubtless forgotten the fact that a "Learned Dutchman" has already expressed an opinion, not perhaps quite so strong as desired, but at least tending in that direction. Wagner (General Pathology Am., ed. p. 65) says:

"Although it is certainly more healthy to breathe pure air, yet it cannot be said that definite diseases are produced by air made impure by human exhalations." My present object is simply to detail some facts which came under my own observation, which tend to show that Wagner is not far wrong; that the inhalation of foul air does not necessarily and uniformly produce disease and that seems to set at defiance the best established and most generally accepted laws of hygiene.

In the year 1874, I was physician to the Greene Co. (Mo.) jail. The jail-building is a two-story brick structure, forming a wing on the rear of the County Court House. Running east and west through the center of the building, is a corridor about six feet in width, having no ventilation at night, and in daytime ventilated by a grated door at either end, the east end door opening into the basement of the Court-House. There is also a narrow hall from the center of the corridor, south to the street, the hall door being generally closed. On the north side of the corridor are three cells having grated doors and a small north window ten feet from the floor and about thirty inches square. Thus it will be seen that the ventilation of these cells is extremely imperfect.

In one of these cells is an iron box made of boiler iron about 8½ feet high. The door is solid excepting a small slide five feet from the floor large enough to hand in provisions and water to the inmates, perhaps six by twelve inches. On the top, there are four longitudinal openings running across it about three inches wide. Having no openings at the bottom, those at the top establish no current of air. Here we have a nearly air-tight box, in a cell with but very little ventilation, opening out of a corridor which has but little more. Yet the worst is to come. In a back corner of the box is a privy seat with a large iron discharge pipe curved in a quarter circle passing through the floor, out through the foundation of the building and terminating in a large covered privy vault outside, which outside privy was in constant use and in which disinfectants were not used. When the lid was raised, as it must have been many times a day, a horrible stench came up through the tube, filled the box, the cell, the corridor, the other cells, the hall, and I have often smelled it outside of the front door of the building.

The cubic contents of the box is 1120 feet, making no allowance for the bunks, the mattresses, the bedding and the bodies of the inmates.

In cold weather a small stove burned in it, and for perhaps half of the twenty-four hours, a coal oil lamp. Yet there were confined in that box during that year, never less than six, and at times as high as twelve persons.

Hygienic authorities insist that in prisons, hospitals or schools there must be eight hundred cubic feet of air for each person, unless the means of ventilation are extraordinary, and if so not less than six hundred feet. In this case when the crowding was the greatest, there was as low as eighty, and when there were six inmates not over one-hundred and fifty cubic feet, after making the above allowances, and no ventilation at all, except from the privy vault.

On looking over the situation I went before the County Court and made a pathetic speech, gave a scientific exposition of the subject of ventilation, and declared it to be almost certain death to any human being to remain there during the hot weather, etc. [The experiment had not been tried as the box had just been made]. However, the Court did nothing.

One may judge of my surprise, when I say that during that year and the next, while I remained in medical charge of the jail, the health of the prisoners was excellent. There was not a case of fever or diarrhœa during those years which originated in that cell.

There was confined there one man, a defaulter, a man of luxurious habits, accustomed to every comfort and convenience, but in impaired health. His attending physician, the late Dr. Shutt, told me he had albuminuria. I expected fully that he would die speedily from the foul air and confinement. Yet during the hottest of the summer he enjoyed excellent health, and in the few months he was there, he gained twenty pounds of flesh. He took no medicine beyond an occasional vegetable laxative pill. During the same summer an old man of 60 years was confined on a charge of murder. At his capture he received a gunshot fracture of the radius and a severe flesh wound in the shoulder, one in the hip and one in the thigh. Here, surely, I thought, I will have erysipelas, septicæmia, and the compound fracture will never unite. Yet I am obliged to say that no wounds ever healed more kindly.

The cell is in the same condition still, only a ventilating chimney has been carried from the top of the cell to the roof of the building, the privy arrangements remaining the same. Yet

the inmates have enjoyed (though perhaps not so crowded), uniform good health, as I am to-day (Jan., '80) informed by Dr. Flanner, the attending physician.

"One swallow does not make a summer," yet the experiment has been long enough—now seven years—to demonstrate that something besides stink and foul air is necessary to make people sick, or at least to raise the question whether those agencies act in this direction as uniformly and as certainly as we have been accustomed to think they do.

ARTICLE VII.

ELATERIUM IN DROPSY. By A. WISLIZENUS, M. D., of St. Louis.

There is, perhaps, no disease that requires so much individualization in its treatment as general dropsy. Effusion of water in serous membranes or in the cellular texture, is but the symptom, of many different diseases, as, for instance, organic diseases of the heart, liver, spleen and kidneys, inflammations, abnormal blood, malarial infection, rheumatism and gout, disturbed equilibrium of importation and exportation in the system, mechanical impediments to the free circulation of the blood, nervous prostration, etc. It follows, then, that general dropsy requires very different treatment according to the main cause and according to the constitution and surrounding circumstances of the patient. We possess, therefore, no specific suited to all cases of dropsy, and the various remedies recommended in this disease are too numerous to be mentioned here. One of the oldest, known already to Hippocrates, is elaterium, the exuding juice of the ripe fruit of *momordica elaterium*. Its action is powerfully hydragogue-cathartic-diuretic. In the 17th and 18th centuries it was especially used and recommended by Sydenham and Boerhave. They performed wonderful cures with it in this disease where all other remedies had failed, because as acute observers they individualized and reserved their grand remedy for suitable cases. But their followers, who regarded it as a general specific in this

disease, soon brought it into discredit by indiscriminate application and by indiscreet doses, and in course of time it was almost forgotten, and became nearly obsolete. In this century it has gradually been revived by various physicians in different countries, who use it with proper discrimination, and to great advantage. In my own experience, I have often had occasion to give a trial to this remedy in obstinate cases where it seemed to me fully indicated, and it proved generally successful, sometimes even beyond my expectations; and since it is not as generally appreciated as I think it deserves to be, it may not be amiss to report a case that lately fell under my attendance—a very typical case, illustrating clearly the indications for the remedy.

The patient was a German, 56 years of age, a strong, stout man, fat but yet muscular, and weighing 225 pounds. He had led an active life and was not addicted to liquors, drinking mostly beer and light wines. About a year ago, he began to feel slight dyspnoea in mounting stairs or walking fast. Regarding this as a disposition to asthma and being habitually constipated, he relieved himself temporarily by cathartics, but gradually his feet began to swell, his dyspnoea increased rapidly, and early in the winter, he was confined to his room and bed. When called to his assistance, I found him sitting in an arm-chair, the easiest position for him on account of his dyspnoea. Examination of the chest showed dilatation of the heart and in the præcordial region such a discord of sounds that it took me some time to analyze it into a feeble, unrhythmical, sometimes intermittent systolic and diastolic murmur, muffled as it were by promiscuous and irregular sounds of regurgitation, proceeding from valvular insufficiency in the pulmonary artery and aorta.

Both lungs were emphysematous and exhibited loud mucous râles everywhere, but especially in the left lung, where the râles expanded fanlike, as if some embolus obstructed the right branch of the pulmonary artery; the murmur of respiration was not quite suppressed, but bronchial; a constant cough with very little expectoration troubled him; lying down or sleeping was out of the question. His extremities were quite cold; the pulse at the wrist could scarcely be felt, was slow, feeble, and sometimes intermittent; his liver was somewhat enlarged and of torpid action; urine very scanty, with thick sediment of uric salts, but no albumen; abdomen in the lower part filled with water; anasarca in the lower extremities to a very high degree.

It was apparently a case of general dropsy from disease of the heart, prognosis very bad. The patient had never been affected with rheumatism or gout, nor in fact with any serious illness before. The only cause to which he could attribute his present disease, was that in his business he had a great deal to do with ice and ice houses, and that during the summer he often drank very cold beer. Evacuating medicines and promotion of all the secretions were certainly indicated, and as elaterium is especially useful in dropsies from heart disease, I would have tried it at once if the patient's extreme weakness had not forbidden it. I ordered the patient therefore to bed, placing him in a sitting position, had his feet warmed, gave him some wine with Vichy water, and later cathartics, such as Hunyadi Janos, common drastics, sometimes with calomel, sometimes with quinine; between them diuretics, of squills and acetate of potassa; rubbed the extremities with camphor and bandaged them; used iodine externally on the chest and abdomen, etc. I allowed him, also, a nourishing diet and light wine. Continuing this treatment about two weeks, I perceived no real improvement in the objective symptoms except that the patient felt rather stronger and the circulation of the blood was somewhat freer. This appeared to me the right moment to give the elaterium a trial. His naturally strong constitution, the integrity of his digestive organs and his former tendency to constipation gave me confidence that he would bear a more heroic treatment and that the elaterium was now fully indicated. I commenced my new treatment by prescribing elaterium in the following formula:

R. Elater. (anglic. alb.).....	gr. j.
P. extract. coloi comp....	3j.
P. extract. hyosc. sicc.....	grs. xjl
M. exat tissime	
Mutit. gum. arab. q. s. ut. f. pilulæ.....	No. xlj.

Ds. 1 pill to be taken every night.

The first pill acted like a charm on my patient. It produced within a couple of hours at first some griping pains and then such copious and powerful action of his bowels, both *stercoralis* and watery, that towards morning he felt quite weak, but so relieved in his chest, that for the first time since many weeks he enjoyed a good sleep for several hours. The daily course of treatment, medicinal as well as dietetic, which I now prescribed for

him, was the following: When the effect of the pill was nearly over, he took a cup of strong and warm beef tea, slept then a couple of hours, then breakfasted on eggs and coffee; later, a dinner of some roast meat with light vegetables, as a common drink using Vichy water with some light wine. But in the afternoon he had to return to medicine, to a diuretic mixture, the decided and good effect of which I have on so many occasions observed, that I may be excused for communicating its formula:

R. Potass. Carbonate pur. (c Tartaro).....	℥ ss.
Acet. scillitic. q. s. ad perfectam saturationem	
Tartr. potass. boraxat.....	℥iij.
Spir. nitr. æther	℥j.
Aq. destill. q. s., ut fiat mixtura.....	℥viij.
Oxymell. scillit.....	℥j

M Ds. S The fourth part to be taken.

Of this mixture, patient took every afternoon or evening one-fourth, and later, when I saw his stomach could bear it, one-half, and it produced a marked effect, not only in clearing the urine in a few days from all sediments, but also in increasing its quantity considerably. The external use of iodine was also continued, but to a greater extent, by brushing alternately with the tincture one day the whole abdomen, and on the following the lower extremities. The good effect of this combined treatment, the main pillar of which was after all the elaterium, was so conspicuous, that from day to day the objective symptoms of the disease receded more and more, so that after two weeks I regarded the patient as convalescent. All dropsical symptoms had disappeared, kidneys and liver in normal action, digestion good; and in the chest instead of the emphysema and râles, the natural murmur of respiration pervaded the lungs; no more cough nor dyspnoea. The heart was still somewhat dilated, but no more regurgitating sounds were heard; systole and diastole worked in regular rhythm; pulse from 60° to 70° and the only remnant of the former valvular insufficiency I discovered in the casual, momentary retardation of the systolic contraction, occurring only at long intervals. But of all these important changes the patient himself appreciated most highly, the sound sleep which he now enjoyed in all positions and at all hours of day and night, and least of all he regretted the loss of twenty-five pounds in his bodily weight.

To prevent a relapse, I continued the remedies still for some weeks in reduced doses; and now that he is up again and attending to his business, he takes only every morning a tumbler-full of Hunyado Janos, and in the evening, a tablespoonfull of diuretic mixture, and avoiding all the other stimulants he drinks only Vichy water with a moderate quantity of light wine.

As elaterium is often found of very different quality, the physician who prescribes it ought himself to examine the preparation on hand in the drug store. The most reliable is the so called English elaterium, white-greyish, in small light tablets or fragments, containing the substance deposited spontaneously by the juice of the fruit. Another preparation is gained by expression of the seeds and other parts of the plant, and forms a black extract. The first one acts in minute doses; I begin generally with one-twelfth or one-tenth of a grain as a dose. The latter is most unreliable in its action and has to be given sometimes in doses of one or two grains. It is therefore safer never to prescribe the black extract of elaterium. In compounding pills of this medicine, the minute dose of elaterium should be so thoroughly and carefully mixed with the other ingredients, that every pill will contain an equal quantity of it. In every case the pills should be freshly prepared.

Reports on the Recent Progress of Medicine.

VENEREAL DISEASES.

By LEGRAND ATWOOD, M. D., Collaborator for the JOURNAL.

FRENCH VIEWS OF SYPHILIS.—A French Journal, *L' Année Medical*, Caen, has in its last few issues had some excellent lectures on syphilis by Dr. Deuir-Dumont, surgeon-in-chief of the Hotel-Dieu of that city. In concluding his last one, he says: "These three conclusions contain the result of our study of syphilis—a *unity* of origin of all syphilitic maladies; the *incurability* of the disease, when the immense variety of its effects is considered; and as a logical consequence an indefinite *continuance* of treatment, with occasional interruptions.

These discouraging views are those now generally prevalent in France. They are forced upon surgeons by constant discoveries of hitherto unobserved connections of pathological changes with previous syphilitic poisoning; and probably, these discoveries are by no means complete.—*Med. and Surg. Rep.*, Jan., 1880.

SYPHILIS IN RUSSIA.—Syphilis, says Dr. Podolinski, is the principle scourge of the rural population of nearly all of Russia, but its ravages are greatest in the South, in the government of Kiew, Poltava and Theringnon. In some of the villages a third of the inhabitants are contaminated. In Taroslowka, of 120 families, 30 are certainly syphilitic, and 64 only are known to be healthy. The influence of the disease on the degeneration of the population and the increase of mortality is very great. There is scarcely an example of a member of an infected family having passed the age of sixty, and the death rate among the syphilitic is more than one-half greater than that of the remaining population.—*Med. and Surg. Rep.*, Dec., 1879.

SYPHILIS, ITS INFLUENCE UPON THE COURSE OF WOUNDS.—Dudterhoff (*Wien. Med. Woch.*—*Bost. Med. Jour.*.) summarizes the results of experience derived from the recent wars in Europe, as to the action of the syphilitic poison upon wounds received by its possessor, thus: (1) Superficial contusions or continuous irritation

of the wounds, can during the contagious period of syphilis, cause the appearance of syphilitic efflorescence at these points of irritation, without however, influencing the healing of the wound.

(2) Wounds received close to or touching the primary induration may yet heal *per primary*.

(3) Latency of syphilis is favored by the increased activity of tissue metamorphosis during the healing of severe wounds, but as cicatrization becomes complete, the syphilis may appear at the point of injury or elsewhere.

(4) Old syphilis, if latent, does not interfere with union by first intention after surgical operations; if present, the poison acts unfavorably.

(5) Bone syphilis predisposes to fractures and militates against consolidation.

(6) Inveterate syphilis, with diseased bone and general exhaustion, may cause wounds to assume a definite form of gangrene, yielding to specific treatment.

(7) Constitutional syphilis has no connection with pyæmia, nor is it proved to predispose to bleeding of wounds.—*Detroit Lancet*, Dec., 1879.

DR. BURKLEY, of New York, treats chancre with $\frac{1}{2}$ grain of green iodide of mercury, morning and night.—*Exchange*.

Dr. Burkley reports, in *Archives of Dermatology*, October, 1879, two cases of syphilis supposed to have been contracted by means of cigars. The subjects were both physicians of intelligence and education, who had devoted much time to the investigation of their cases, and excluded other means of contagion. Both had chancres on the lips, which were followed by constitutional manifestations, relieved by specific treatment. He suggests as a prophylactic to those who use cigars, the use of the cigar-holder.—*Margland Med. Jour.*

TREATMENT OF GONORRHOEA IN WOMEN.—It is not the simple matter one would be led to suppose upon reading the descriptions given in the majority of text books. Injections prescribed, such as the zinc, alum, copper and silver salts are very slow as well as insufficient in their work. The virus not only invades the genital folds of the vulva, but likewise the urethra, vagina, cervix uteri and even the uterine cavity and oviducts. I know of nothing comparable to the excessive use of hot water douching in the initial symptoms of the disease, as the retention of the acrid virus in the folds of the vagina is apt to beget erosions of the mucous surface which rapidly undergo ulceration. Any method to prevent friction of the vaginal walls is beneficial and as the

common clay found in Pennsylvania, Missouri and other States, is a most admirable antiseptic as well as very soothing to inflamed surfaces, my practice for some ten years past is to thoroughly irrigate the vagina with hot carbolized water. Place the patient in the knee-chest position, retract the perineum with the Sim's speculum, and after the vagina is ballooned by atmospheric pressure to thoroughly dry the surfaces with cotton, then paint them with a saturated solution of nitrate of silver, followed by a solution of common salt, to make an insoluble silver chloride to prevent too much cauterization; then to dry the surfaces once more with the cotton and then fill the vagina with dry powdered clay or a magma of clay, vaseline or thymol. The clay is not only an antiseptic, but it protects the mucous surfaces from attrition, and is at the same time a pessary-mould on which the uterus rests. Besides these advantages it absorbs all of the gonorrhœal discharges and keeps the genital tract clean and free from smell. Twenty-four hours subsequently the patient can wash everything out of the vagina by means of the hot water douche and you can re-apply the nitrate of silver, etc., again. By this mode of treatment you will cut short an attack of gonorrhœa, and will save your patient much subsequent distress which ensues after the ordinary injection plan as laid down in the books, because you free the crevices and folds of the vaginal surfaces of all contagious matter, and you cauterize the cleansed mucous membrane instead of precipitating and balling the mucosities to be retained and rub the excoriated surfaces. With regard to internal medications I know of no specific, even when there is gonorrhœal urethritis, other than some demulcent drink to render the urine bland and unirritating. Copaiba, cubeba, sandal-wood oil, etc., are worse than useless, because they not only do no good but they are frequently productive of harm by upsetting the patient's digestion.—Montrose A. Pallen, A. M., M. D., in *Gaillard's Med. Journal*, Dec., 1879.

ON THE TREATMENT OF SYPHILIS WITHOUT MERCURY.—In the January, 1880, number of *Braithwaite's Retrospect* is a communication, taken from the *British Medical Journal*, July, 1879, under the above caption. It is from Dr. J. P. H. Boileau, B. A., F. R. C. S. I., Surgeon-Major, Assistant Professor of Pathology, Army Medical School. The leading idea of the writer, although not original, is an important matter for consideration at the

hands of the profession, and it is to be hoped that further observation of the treatment of syphilis without mercury may be made by careful practitioners. Admitting the correctness of the views of Keyes, of New York, that, administered in the manner described in his work, mercury is a decided tonic and that under a course of treatment extending over a space of three years, patients improve in strength and health and even beg the privilege of continuing the treatment upon the ground that they never enjoyed such health before. Still, if the disease can be effectually eradicated without the use of so potent a drug, it would certainly be better to discard it altogether. Dr. Boileau says: "My position is briefly this. In May, 1865, I was gazetted to a regiment about to proceed abroad. I served with it in the Mediterranean, in Canada and in the West Indies and at home; and left in October, 1876. For ten years of that period I was most closely associated with the regiment and had many facilities for prosecuting injuries into the results of the treatment of disease, and, by observations, continued year after year, for satisfying myself as to the state of my patients long after they had been the subjects of my treatment, and so I am in a position to-day to bring to your notice not only cases of syphilis treated without mercury, but I believe cases of syphilis cured (by natural processes or otherwise) without mercury.

The principle, which in the main guided me in the treatment of syphilis, was the principle of avoiding mercury as much as possible, and in carrying out this principle I treated most of the cases without prescribing any form of that remedy. Rarely did I resort to fumigation or inunction, and I now believe that it would have been better had I discarded all local remedies having mercury in their composition. As a rule, I did not use such applications. I tried the internal administration of mercury in some cases without being at all satisfied concerning its alleged antidotal or curative powers."

He then outlines the history and treatment of seventeen cases, in not one of which was mercury administered, and yet each one was clearly and unmistakably true syphilis, in which characteristic secondary manifestations followed indurated chancres without suppurating buboes. In conclusion he says: "I would beg of those who hold that the specific action of mercury is absolutely necessary for the eradication of syphilis from the organism to consult the works of Hughes Bennett, Lanceraux,

etc., for a list of observers, committees or councils that have declared in favor of the treatment of syphilis. My experience as an army medical officer of fifteen years' service, ten of which were passed with one regiment, compels me to believe that syphilis is as curable without mercury as is small-pox or typhoid fever. And until I have seen better proof than a mere *ipse dixit* that all the patients that I have treated without mercury are still under the influence of the syphilitic poison, I certainly cannot admit it. To the logic, however, of well-ascertained facts, I am quite vulnerable."

Translations.

FROM THE ITALIAN.

STORIA COMPENDIATA DELLA CHIRURGIA ITALIANA. DAL SUO PRINCIPIO FINO AL SECOLO XIX. Del Professore CARLO BURCI.* [For the JOURNAL.] JOSEPH WORKMAN, M. D., Toronto, Canada, Translator.

COMPENDIATED HISTORY OF ITALIAN SURGERY.

The above is the title of a most erudite and interesting article which, at the request of the editors of a new Dictionary of the Medical Sciences, then about to be published at Pavia, was, in 1872, furnished by Burci, but owing to the undue extent it had reached, it was found too voluminous for the available space at the command of the publishers, and was, in consequence, reluctantly declined.

Not long afterwards Burci was gathered to his fathers. Whether the mortification induced by the rejection of a production which had cost him so much toil and patient research contributed to the shortening of his days, is a question which must best be solved by those who have encountered similar disappointments. It is impossible to read this "Compendiated History of Italian Surgery" without admiration of his comprehensive

*Published in the proceedings of the Royal Institute of Superior Studies, Medical and Surgical Section, Florence, 1876.

knowledge of the subject on which he had been invited to write, or without profound sympathy with the patriotic ardor by which he seems throughout to have been inspired, even though we may at times feel inclined to doubt whether his perpetually recurring exhibitions of zeal in vindication of the paramount claims of his native country to scientific eminence might not have been profitably held in check. An old proverb says, "Good ale requires no broom," and so think we as regards the history of Italian surgery and Italian anatomy. The facts might well have been left to speak for themselves and for the enduring fame of the men who gave them, not to Italy alone, but to the world.

To reproduce, in the pages of the *ST. LOUIS MEDICAL AND SURGICAL JOURNAL*, the whole of Burci's history of Italian surgery, compendiated, as indeed it is, would be a misappropriation of our space as foreign to our editorial responsibility as we apprehend it would prove unsatisfactory to our readers, the great majority of whom must be more concerned in acquiring information on the modern improvements and discoveries of their science than in acquiring a critical knowledge of its early history. We must therefore content ourselves with a mere series of abstracts, exhibiting the most important and interesting events in this department of scientific history, and signaling the eminent contributors by whose devotion and labors it has been raised to its present honorable and universally honored distinction.

Burci has divided his history into three periods, the first of which extends from the origin of surgery down to the year A. D. 1168; the second reaches from the latter date down to the beginning of the present century; the third would appear to have been merely in contemplation, or to have been but inceptively touched upon in the winding up of the second. The work had already grown upon the author far beyond the size within which he had hoped to confine it, or to which the editors of the Dictionary had enjoined him to limit it; and as he tells us at the precipitated close of the present *brochure*, the continuation "would merit, not one, but several volumes," and that several eminent Italian writers are at present actually engaged in the work, we may feel reconciled to the privation, well assured that the revived spirit of Italian nationality will not suffer the scientific achievements of the proud peninsula to pass unheralded.

From Burci's first period we select only three passages, which,

as they are the records of the three most distinguished fathers of medicine and surgery, must be interesting to every lover of medical literature :

HIPPOCRATES.

"Hippocrates was born in the island of Coos, in the eightieth Olympiad, 460 years before the Christian era. In the eighty-fourth Olympiad he had become famous among the Greeks, and his works, which constitute the foundation of medicine, established the cardinal documents of the healing art, and all the best verified practices of surgery. From his writings, but especially from his "Aphorisms," his "Prognostics," his "Propositions," his offices of medicine, etc., and from his treatises on fractures and dislocations, we may well perceive the state in which surgery then was, and what the character of its instruction was. From these writings it is made manifest to every one that the art had greatly prospered, and that it had been enriched by many pathological studies and many operatory and mechanical means, calculated to cure and subdue numerous human infirmities.

In his book, "*De Officina Medica et de Medico*," we find recorded excellent precepts on the instruments which the surgeon ought to employ, the places suitable for operations, the method best adapted to their execution, and on the form and uses of bandages, which were then very ingenious and special. It was Hippocrates who taught the curative system for adoption on inflamed parts; who distinguished tumors as warm, phlegmonous, and cold or pituitous; he taught the curing of abscesses, wounds and ulcers, advising at one time the application of refrigerants and emollients, and at another, of tonics and excitants, and recommending for wounds their immediate reunion, aided by proper diet and purgatives. He divided wounds into those essentially mortal (those of the brain, the spinal cord, the small intestines, the diaphragm, the urinary viscera, the heart and the large blood vessels), and into those curable, ordering hemorrhage to be arrested by compression, and sometimes by the actual cautery. He taught the practice of bleeding from every vein, and rendered common the use of dry and wet cuppings.

It is in the Hippocratic aphorisms we find it written that "the disease which cannot be cured by the knife may be healed by fire, and that which fire cannot cure is incurable." Hippocrates studied with great care wounds and fractures of the head,

not overlooking the injury now known as *contre-coup*; he advised to avoid the sutures, when trephining, and explained the operation, and he treated of the diagnosis and prognosis of these diseases with much wisdom and great learning. He prescribed the cure of nasal polypi, and of ranula; of empyema and hydrothorax by puncture of the thorax, and of ascites by abdominal paracentesis; he recommended the amputation of diseased breasts, and declared cancer incurable. He was truly a sovereign master in teaching the best means for discovering, replacing and curing fractured bones and reducing dislocations; he next treated of fistulas, renal abscess and diseases of the rectum, and bestowed much attention on everything relating to the diseases of women. In his treatise on fractures and dislocations it is manifest that he must have had knowledge of the human skeleton and of anatomy, for without this aid he could not have given such useful and appropriate instructions. Even in those early times there were *specialists* for the treatment of several diseases—lithotomists, obstetricians, etc.

Surgery having, through the labors of the Asclepiadi, of Hippocrates and his disciples, and of the *free* class, become a common art, no longer empirical or sacerdotal, but guided by rules dictated by learning and experience, and comforted by the aid of medicine itself, appeared to be destined to make prosperous advance whenever the men and the times might be propitious.

But if we except Diocles, of Caristo, who, during the lifetime of Hippocrates invented an instrument for extracting arrows, and Thesalus and Polybius (the one the son and the other the son-in-law of Hippocrates), who diffused and amplified his works, and that Prassagora, of Coos, who advised and performed gastrotomy for the iliac passion, as well as the suture of wounded intestines, no other name worthy of note is known in the interval between Hippocrates and the school of Alexandria. The grandeur of Rome by degrees attracted the most illustrious men of the school of Alexandria in every branch of knowledge, and of course in that of medicine, which now declined in the country of the Ptolemies, as much as it spread and increased in the Roman republic, where, before, physicians had been ignorant and despised, but where continual wars should at least render surgeons practical and able.

“Arcagatus, a Greek physician, came to practice in Rome two

centuries before our era. He was called the *hangman* (*il boia*), because he used in his cures both iron and fire.

CELSUS.

"The writer who gives us an exact account of the state of medicine and surgery in Rome is Aulus Cornelius Celsus. He was an Asclepiadan empiric, and was styled the medical Cicero and the Roman Hippocrates. He flourished in the time of Augustus, the golden age of Roman literature. He wrote largely *De Artibus*, and especially (in eight books) *De Arte Medica*, the only work of his that has come down to us. He was a most acute writer and critic, though he did not practice the healing art, which would have compromised the dignity of a Roman citizen! Yet in these eight *Celsian* books, how many useful precepts and sound instructions for the cure of diseases and for the practice of the art are found registered? Setting aside those which relate to medicine pure, and only rapidly glancing over what relates to surgery, I shall say that Celsus discourses masterly of wounds, ulcers and abscesses; of the method of restraining hemorrhages, even with the double ligature and the intermediate division of the artery; of the cure of poisoned wounds by means of ligature of the limb; of the sucking out of the poison, and of scarification and fire to destroy it. He treats of the extraction of spears and fixed foreign bodies; of fistulas, resection of carious ribs, amputation of gangrened limbs by cutting above the dead parts; of cistotomy, which still retains in the schools its name of *Celsian*, and which I have, in my lectures, shown to be the method of the bilateral cutting. Even now, who may not with profit read in this golden book of Celsus where it treats of the diseases of the eyes, and of the cure of cataract in its commencement, and of the proper operation by depression of the crystalline lens; of the extirpation of pterigium; of the incision and cauterization of lachrymal fistula; of the cauterization of the ciliary bulbs for trichiasis; of the operations for palpebral prolapse, ectopion and entopion, as well as that for staphyloma, by means of ligature or the excision and cauterizing of the ocular tumor?

"It is Celsus who, following his predecessors in the art, advises the operation for hare-lip, and that for ranula by extirpation; also the excision of swollen and indurated tonsils, and finally the extirpation of the gullet; and it is Celsus who gives

the first and most salutary precepts in autoplasty for the restoration of the nose and lips, thus leading the way to the operations of Tagliacozzi and those able masters who afterwards so amply illustrated this noble part of restorative surgery. He treats of the cure of reducible hernias, both umbilical and inguinal, recommending for the former, after accurately replacing the viscera, in some cases, compression by means of wooden pads so long as gangrene does not threaten; in others, ligature on the mass or cauterization; and for the latter the extirpation of the hernial sac, sparing the testicle, and advising closure of the supposed rupture of the peritoneum by suture. For strangulated hernia he believed baths and emolient plasters alone proper. For wounds of the large intestines he regarded enterorraphy as useful, but not for those of the small intestines. The precepts are wise which he gives for the cure of phimosis, paraphimosis and ulcers of the penis; for scrotal hydrocele, by cutting and the use of stimulating lotions of water, salt and nitre, and by semi-castration or injection, etc. It is to him we are indebted for the first observations on blood extravasations within the cranium; for special instructions on fractures in general, on their simple and complex forms, and on the opportune time for their reduction, now instantly, or again consecutively, according to the state of the neighboring soft parts.

"Celsus was the best educated and the most erudite surgeon of his time; he was exact and precise in his description of diseases, and in his search for their seats, and his inquiry as to the habits of the patients; he was rigorous in his judgments of the qualities of remedies and operations. Living in the midst of a throng of medical impostors, who made a most vile trade of their art—among specialists of every sort, charlatans, destroyers of health and traders in therapeutics, who had come from the school of Alexandria to Rome—he fearlessly preserved his independence, and in the name of Hippocrates restored to bloom the Greek medical doctrines, and brought the healing art into a highly improved state. In short, he was, as De Renzi says, "a superior spirit, who perfectly understood the wants of science and made generous efforts to meet them."

During the interval between Celsus and Galen, which comprehended a period of a century and a half, surgical art made little progress, and the men who represented it, guided by that

spirit of empiricism which then ruled in the Roman medical school, all in their turn struggled to magnify their remedies. They were mostly vulgar fellows and quacks, who looked more to their own gains than to the honor of art.

CLAUDIUS GALENUS.

Claudius Galenus was a man of marvelous genius. He was born at Pergamus, a city of Asia Minor, in the year A. D. 131. He learned the healing art in his own country, in a priestly temple dedicated to *Æsculapius*. He afterwards went to Alexandria to follow up his studies in the famous schools of that city, under highly reputed philosophical and medical masters, and to continue his anatomical work under Quintus. He next traveled in the East, and in a small ship sailed around all Licia in order to become acquainted with certain remedies then vaunted as excellent. Having in the course of ten years terminated his studies, he returned to his own country, where he became director of that gymnasium from which he had gone out as a disciple. But his expanded knowledge could not submit to confinement in such narrow bounds, and after two years he was induced to visit Rome, where high honors and fame awaited him, which, after his death, had become so universal as to give his name to that period of medicine, to rule through many centuries in the schools as the peer of Aristotle, of whom he was a follower and admirer.

Galen was a physician, a philosopher, an anatomist, and an experimental physiologist, studying particularly the office of the nerves, the acts of respiration, and the formation of vocal sound. He practiced surgery, but still more medicine. His scholastic method ill conforms to the free teachings of Hippocrates, and his tendency to poly-pharmacy, which he imbibed from the Alexandrian medicine, rendered him endeared to the Arabs whilst they ruled over science and art, which reached up to the Italian revival. The works of Galen were numerous, but they have not all come down to us; they constitute the most noble monument of ancient medicine, and especially of that of Rome. He gathered in and reduced to order the whole range of medical science from the founding of the school of Coos to Hippocrates, from Hippocrates to the Greek schools of Alexandria, and from these to that of Rome.

I leave to the physicians the labor of illustrating the Galenic doctrines, their value, their errors, and of showing how much he

benefitted science and art. I shall merely say that when Galen treated of surgical diseases, because he was the most learned among the few anatomists of his time, he did so with precision, exactness, and an admirably clear perception of all the subjects on which he discoursed. He gave wise instructions on phlegmous, bandages, and the method of stopping arterial hemorrhages by compression, by double ligature and torsion of the cut vessel, as well as on the service of blood-clot in arresting the flow. He treated at length of false aneurism, of tumors, and of diseases of the eyes. He performed exsection of part of a rib, or of the whole of it, and of a portion of the sternum. As to the rest, it may be said he did not, in his surgical teachings, advance the art to that point to which his genius, his studies and his large experience of fifty years in Rome should have led us to hope for."

The author then tells us that after Galen, medicine kept pace in degradation with the other sciences and arts, and continued involved in gloom and that mysticism which has ever been the handmaid of imposture, until the restoration of Greek literature and the invention of the art of printing broke through the all-pervading darkness, and mankind once more began to give free rein to those inherent mental powers which had for so many ages been held in brutal bondage. The following paragraph from the close of Burci's first period of the history of surgery, presents a sad picture of the debasement into which the art had fallen in the beginning of the sixth century:

"But what was the fate of surgery when the barbarians invaded the great part of Southern Europe, and under the standard of the blindest ignorance destroyed monuments, libraries, arts, sciences, letters—everything? Surgery, which had never formally been separated from medicine, passed essentially into the hands of ecclesiastics; every cloister had its physicians, and also its school, and then came forth mercenary and ignorant empirics, such as were the *Perodexti* in the times of the Asiatic and European Greeks, who, dividing the work, undertook, some to cure diseases of the eyes, some fractures and dislocations of the bones, some wounds, etc. But where had these studied? Who had given them authority to practice? The practice of the family came down in the family; it was undisturbed by governmental oversight, and became a mere trade, exercised as many others, without either conscience or charity. Malgaigne, in his classical introduction to the works of Ambrose Paré, relates, and De Renzi

confirms the statement, that in the Codex of the bisigottes of the year 504, in which the practice of medicine is regulated—certainly then more followed by the free than by the claustral class—that should a physician have at any time bled a patient, and have taken too large a quantity from one of free condition, he must forfeit 100 sous (soldi) if the person survived, and in the case of death, he must be delivered up to the relatives, who might do with him whatever they pleased. If the patient was a slave, he must restore for him one of the same value. When a surgeon or physician was called to a sick person, he must fix the amount of his fee and receive earnest before undertaking the case, and in case of death he had no right to any payment. *The operation for cataract was rated at five soldi (five cents), provided the cure was complete.*

Clinical Reports from Private Practice.

A CASE OF INCOMPLETE STRANGULATED HERNIA, REDUCED AFTER EIGHT DAYS. By W. B. CRAIG, M. D., Prof. of Anatomy, St. Joseph Hospital Medical College, of St. Joseph, Mo.

Upon the night of December 22d, 1879, I was called by Mr S., a medical student, who requested me to visit his brother-in-law, who was suffering from some obscure trouble of the bowels. At first I hesitated, but regarding it as an imperative duty, consented to go and do what I could, although the patient was reported to be in a dying condition. On my way to the patient's house, I gathered the following history of the case. It seems that Mr L., the patient, had a hernia once before, which was reduced with some difficulty, and that eight days previous to my being called, he had, while doing some heavy lifting, been taken suddenly ill, attacked with obstinate vomiting, constipation, and intense pain in the lower portion of the abdomen, the vomiting, in a short time, becoming slightly stercoraceous. Upon his arrival in town, in the afternoon of the day he received the injury, the family physician called to see him, and prescribed for him. This condition of affairs had existed until the evening I was called.

On arriving at the house, found the patient natural and in

possession of the faculty of speech, which singularly had been lost at different times during his confinement to bed. He was suffering excruciating pain over the abdomen, which was increased on pressure; lower extremities flexed on pelvis; abdomen very tympanitic. These symptoms pointed to peritonitis; casual inspection revealed nothing abnormal or unusual; however, upon a more careful examination, the fold of the right groin seemed a shade fuller than the left. Palpation elicited a slight doughy feel, but no tumefaction or swelling or great tenderness over the inguinal region, the cord alone being sensitive. Careful examination at this time failed to reveal any hernia, my efforts being directed to the reduction of an oblique, if any existed. Retiring to the next room, I gave a grave prognosis and suggested the propriety of temporizing until morning and then of an operation. Although I could not determine positively the presence of a hernia, yet strongly suspected one near the internal ring. Again, as it had been over a week from the date of the attack, the strangulation could not of course be complete, and a short delay could not endanger him materially. In the meantime I could prepare assistants, etc., and have good light. However, upon still further deliberation, I decided to again attempt to render a clearer diagnosis. I elevated the lower extremities of the patient, and thus by gravitation aid my efforts still further in reduction of any small loop of gut that was imprisoned. I varied the manipulations somewhat from those of the first examination, making direct pressure backwards as in returning a direct hernia. Fortunately my efforts were at last crowned with success; the small loop of intestine or omentum, or possibly both, could be felt gliding rapidly by the conjoined tendon, which was tense and hard under the finger. Before I could say a word the patient cried aloud, "There, its in," and the diagnosis additionally confirmed by an instant return of vomiting. Nothing of interest transpired after this, the usual routine treatment being adopted. Upon the second day, my patient was on his feet and has visited my office frequently since and returned to work.

This was undoubtedly a very obscure case, from the small size of the loop caught by the conjoined tendon, the lack of the usual local symptoms of strangulation; and yet it undoubtedly was, as the treatment more than proved. The yielding nature of the canal permitted the direct protrusion, which passed a little obliquely to escape at the external ring, and was there caught as it passed around the conjoined tendon of the internal oblique and transversalis muscles; but not sufficiently to completely arrest its circulation, which would have produced gangrene in twenty-four hours. As it was, however, another half-day would have proved fatal.

Proceedings of Medical Societies.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

BUCCO-PHARYNGEAL TUBERCULOSIS OR PHTHISICAL ULCERATION OF THE FAUCES. By F. H. BOSWORTH, M. D., of New York.

[Reported for the JOURNAL.]

I was called, on the 2d of April, 1879, to Andover, New Jersey, to see, in consultation with Dr. John Miller, of that place, a patient presenting the following history:

Mrs. C. F. C., æt. 21, married. Her mother and sister died of consumption; her father and three brothers are living and in robust health. She had always been perfectly well and had never been subject to any cough, catarrh or throat trouble.

On February 8th, Dr. Miller told me, he had been called to see her and found her suffering from an attack of acute follicular pharyngitis, involving the soft palate and pillar of the fauces. There was deep submucous infiltration, the uvula being greatly swollen; fever mild, pain slight, deglutition quite painful. She was able to be up, however, and assist in the duties of the household. The Doctor saw her once in four or five days, and under treatment the disease gradually subsided, and by the first of March she was convalescent.

On the evening of March 6th she was married, though at the time she was somewhat delicate, without being able to refer her symptoms to anything more than the slight discomfort which arose from the condition of the throat. On the day following her marriage, March 7th, she was taken with a chill. On the 8th Dr. Miller saw her again, when he found her suffering from an attack of acute laryngitis, with violent fever, high temperature and rapid pulse. There was now considerable pain referable to the fauces and larynx. Deglutition was extremely painful, with slight, hacking cough. The site of the original follicular inflammation of the fauces became now the seat of aphthous patches, extending over the soft palate, uvula, the wall of the pharynx and the palatine arches. The condition in the larynx was diagnosed by the subjective symptoms, no laryngoscopic ex

amination being made. There was extreme prostration and the patient was confined to her bed. An examination of the lungs failed to detect any morbid condition.

From March 8th till April 2d, the above symptoms continued; there was considerable discharge of slimy, muco-pus, and the cough became more irritating and persistent; the fever remained high, the pulse rapid and weak. Liquid food was taken in fair quantity—the swallowing of solid food became so painful as to be rarely attempted. The voice was not at any time markedly impaired.

On April 2d I saw her, about eight weeks after the first symptom of throat trouble was manifest, and four weeks after the laryngeal disease and the grave faucial symptoms had set in.

I first saw her on the evening of April 2d. I found her in bed, apparently fairly well nourished and not much emaciated, but presenting that peculiar facies which showed her to be suffering under some marked dyscrasia. There was a peculiar dirty-looking pallor about the face and lips, while at the same time there was the bright red hectic spot on each cheek; the skin was hot to the touch and very dry; the tongue coated and parched; breath hot, feverish and rapid; axillary temperature 105°; pulse 120. An examination of the lungs showed dulness and broncho-vesicular respiration, verging on bronchial in the right inter-scapula region, but no râles in any portion of the lungs.

On examining the fauces with the tongue depressed, I at first simply saw the parts showing a uniform pallor throughout the whole region, and covered with a thick, tenacious, slimy, muco-pus; but on second and closer inspection, that there was ulcerative action going on, and involving the whole posterior wall of the pharynx, the soft palate and uvula on the right side, extending to the hard palate, the palatine arches, and a portion of the soft palate on the left side. On the right side the palate was destroyed as far as the glosso-palatine arch, but so evenly and smoothly as to almost escape notice, save from the lack of symmetry on the two sides.

An examination of the larynx showed the epiglottis, ary-epiglottic folds, arytenoids and commissure thickened and involved in that peculiar form of ulcerative action which we all recognize as advanced laryngeal phthisis, the ulceration involving the false cords, but the true cords were intact.

The ulceration in the pharynx was peculiar and characteristic, and I could not but pronounce it phthisical.

The closest examination and comparison of the laryngeal and pharyngeal disease failed to show any difference whatever, on inspection, between the two. There was superficial waste or destruction of tissues; there was an almost total absence of any evidence of granulation tissue or attempt at repair; there was no well-marked line of demarcation; there was no depression of the edges, and the depression of the ulcerated surface shaded off to the edges, which were somewhat ragged and irregular; there was no areola of inflamed membrane beyond the ulcer, and it was of a grayish color; but so also was the mucous membrane of the whole fauces, and the general coloration was not markedly different in the healthy and diseased portions. The diseased surface was coated with a slimy, ropy mucus, which I believe is peculiar to phthisical ulceration. We generally speak of it as muco-pus; the pus cells are probably comparatively few; it is mainly mucus and the debris of the wasting process covering and adhering to the ulceration, and partially concealing or masking it, and is removed and voided with considerable difficulty. Frænkel likens the surface of a phthisical ulceration to cut bacon; Laboulbène to the track of an earth worm over moist land. It is difficult to accurately describe it, but when once seen, it is unmistakable.

The subsequent history of the case was simply that of futile attempts to arrest the disease and partially successful attempts to relieve. She died April 15. The lung symptoms developed somewhat, but not markedly. Typhoid symptoms set in, with diarrhoea, on April 8, and she died of exhaustion on the 15th. The high temperature persisted to the last, rarely being reduced below 103°, though quinine was given freely.

The case was one of extreme interest to me, and although I saw her but once, Dr. Miller kept me fully informed concerning the progress of the disease. The main interest, of course, was in establishing in my own mind what had been before only a shadowy belief, viz., the possibility of phthisical ulcerations occurring in the pharynx; for while the reports of such cases had come under my notice, they had always been invested with a degree of uncertainty as to the correctness of the observations.

Medical literature, as far back as Hippocrates, has contained

vague references to symptoms of pulmonary consumption which might refer to faucial ulceration, but the first definite report of true phthisical ulceration in the pharynx I find in the report of St. Bartholomew Hospital for 1871, by Sam'l Gee, who reports the autopsies made in two cases in which the disease terminated fatally after a course respectively of four and six weeks, and in which there was found miliary tubercles in the lungs, liver, spleen and other organs, and scattered nodules in the base of the faucial ulcerations. In the St. Bartholomew Hospital report for 1875, the same writer reports a third case in which the pharyngeal disease set in upon general and pulmonary tuberculosis, terminating fatally after six months, the autopsy again revealing tubercles in the lungs, liver and spleen, intestines, and also scattered nodules around the base of the ulcerated surface in the fauces. Dr. Gee prefaces the report of the third case with some historical references and with the assertion, that although no other cases had been reported, these cases entitled phthisical ulceration in the pharynx to a recognized position in the category of diseases.

Since 1875 a number of cases have been reported by Cornil E. Wagner, Isambert, Frænkel and Laboulbene; and Frænkel has accompanied his report with such a complete history and description of the disease, that it leaves little to be said and I will not occupy your time by any unnecessary recapitulation, but will very briefly generalize.

During the course of general or pulmonary tuberculosis, but more frequently as a primary manifestation of a general dyscrasia or diathesis, there sets in upon the pharynx, soft palate or neighboring parts, an ulcerative process, presenting the appearance described in the case above reported, and which we call phthisical or tuberculosis ulceration; there is severe pain always and often of a most acute and lancinating character. The discharge is not purulent but a dirty, grayish muco-pus.

There is, as a rule, high fever from the onset, the temperature varying from 103° to 106°—a persistent and continued fever and not controllable by quinine—this is my own observation and it is confirmed by other reporters, especially Frænkel, who reports the total inefficiency of the drug to reduce the temperature. The tendency of the ulceration is to extend laterally, and also very soon to the larynx, though I find no report of any case in which laryngeal disease has extended to the fauces.

The course of the disease is rapid; this is especially the case if the pharyngeal ulceration is primary; in these cases death ensues from exhaustion in from four to eight weeks. If the pharyngeal disease is secondary to pulmonary tuberculosis the fatal termination may be postponed from four to six months.

The diagnosis is quite simple to one familiar with the laryngoscopic appearance in laryngeal phthisis, yet so accurate an observer as Fränkel made the mistake of placing several of his patients, suffering from this disease, under anti-syphilitic treatment, not only failing to benefit them thereby, but doing them absolute injury. The only other disease with which it may be confounded is scrofulous ulceration, but grouping the prominent symptoms of the three forms of ulceration together, we will find the differences well marked, as follows:

SYPHILITIC ULCERATION.	PHTHISICAL.	STRUMOUS.
Deeply excavated.	No apparent excavation.	Moderately excavated.
Bright red, angry looking areola.	No areola.	Moderately discolored areola.
Sharp cut edges.	No well defined or sharp cut edges.	Slightly everted edges.
Bright yellow, purulent discharge.	Grayish, thick, semi-opaque mucus disch'g.	Muco-purulent discharge.
Free and copious disch'ge	Small in amount.	Small in amount.
Rapidly destructive.	Erodes slowly.	Erodes slowly.
Extends deeply.	Extends laterally.	Extends laterally.
No general dyscrasia.	Marked constitutional disturbance.	General debility.
No fever.	High fever.	No fever.

We come now to the question, what is the disease and how far is tubercle concerned in its production? I do not propose to enter into a discussion of the pathology or quote authorities. In a paper on laryngeal phthisis, read before the County Medical Society in this city, in March last, I took the ground that laryngeal phthisis is not caused primarily by a deposit of tubercle, but that we have, under the influence of a marked dyscrasia, an attack of acute follicular inflammation, failing to resolve, and that the contents of the inflamed follicles degenerate, break down and develop an ulcerative process, and that the few so-called tubercles that are found about the base of the ulceration are a secondary deposit. This conclusion was based mainly on clinical observation, and was held to more fully harmonize with the development and course of the disease than any other explanation.

Now, applying this explanation to the case reported above:

This young lady, while apparently in good health, caught cold, and it manifested itself in an attack of acute follicular inflammation of the mucous membrane of the soft palate; under simple remedies the disease was subsiding, when there was suddenly manifested in her general system that profound general dyscrasia which had carried off her mother and two sisters and which was a perpetual menace to her during her whole life, viz., the tubercular diathesis. Under its influence the inflamed follicles which were undergoing resolution, now took on ulcerative action and the typical waste set in which characterizes the disease. There was now manifest a very grave general condition, and yet no local manifestation of it save an ulcerative process of moderate extent in the fauces. The general fever and accompanying symptoms were something more than a symptom of the local disease. It was a systemic condition which arrested the process of resolution which was going on, destroyed the *vis mendicatrix naturæ*, and so far dominated the reparative processes going on as to utterly change their character and substitute in their place a destructive process.

The local disease and the blood condition progressing, the patient finally succumbs and dies of exhaustion in acute miliary tuberculosis; and probably had an autopsy been made, we should have found, as were found in most of the cases reported of phthisical ulceration of the pharynx, miliary tubercles in the lungs, liver, spleen, intestines, but in the pharynx, ulcerative destruction of tissue and a few scattered gray nodules about the base of the diseased surface.

DISCUSSION.

Dr. Beverley Robinson — The case just reported by Dr. Bosworth interests me particularly. I cannot say I am of opinion that miliary tubercles would probably have been found in the larynx of Dr. Bosworth's patient. I have had occasion to observe several cases of generalized acute miliary tuberculosis within the past few years. Of these cases, three or four were carefully examined as to their intra-laryngeal condition prior to death. The gross appearances of the vocal organs, both during life and at the autopsy, were those of typical ulcerative phthisical laryngitis. Three of these larynges were presented by me to the members of the New York Pathological Society, and referred by them to the Microscopical Committee for examination. The re-

port of this committee was to the effect that *in no instance* was miliary tubercle found in these organs. And this fact was the more remarkable because miliary tubercles were found in large numbers, generally disseminated throughout the thoracic and abdominal viscera, at the same time. I have specimens in my possession, taken from a patient who died in my service at Charity Hospital only a short time since of generalized miliary tuberculosis. The lungs, spleen, liver, kidneys, intestines, etc., all contained miliary tubercles in larger or smaller numbers. The larynx is deeply ulcerated, and shows a considerable amount of oedematous swelling of the arytenoid cartilages and ary-epiglottic folds. Still, I do not believe, after close ocular inspection, that any miliary tubercles will be found by further research. I shall, however, endeavor to have it referred to the Microscopical Committee of the New York Pathological Society, and it will doubtless be reported upon fully and definitely. Perhaps I may be permitted to add that individually I have come to regard the presence of miliary tubercle in the larynx as very improbable. I do not affirm positively that it never exists there, but I believe I am justified in asserting that the larynx is a most infrequent location for its deposit. As will be clearly evident to all members of this Association, there is involved in this question one of great practical importance, viz., whether so-called laryngeal phthisis is curable or not. I, for one—and in that I agree with Dr. Bosworth—hold that it is. Can it be done by mere topical applications, without operative interference? Of this I am not sure, but I am willing to become convinced.

Dr. E. Cutter, of Boston—What is scrofula? I have been accustomed to regard it as a state caused by tuberculosis or syphilis or possibly cancer; thus when we speak of a scrofulous taint, we mean, generally, both syphilis and tubercle.

Now in the differential diagnosis so ably drawn by Dr. Bosworth, I did not note a diagnostic sign between syphilis and tuberculosis that I have used for ten years, and with gratifying results, practically. It consists in the morphology of the blood. Both states present enlarged white corpuscles, mycelial filaments and spores; but in syphilis the mycelial filaments and spores are copper colored, and the red corpuscles well rounded out, nummulated, and high colored generally. In consumption, on the other hand, the filaments and spores are not copper colored but

white, the red corpuscles are aggregated in confused masses and the hæmatic interspaces are filled with fibrine filaments. I do not say that I have made no mistakes, but I do say that I have cleared up cases by this method of differential diagnosis, inexplicable by ordinary means. My following is that of Dr. Salisbury, of Cleveland, Ohio. I am well aware that these views have not been largely received, still this has not interfered with my making use, and very satisfactory use, of the plan. I should be glad to have the Association enjoy the same advantage that I have.

Dr. E. L. Shurly — I have been very much interested in the Doctor's paper just given, and, in view of the paucity of literature on the subject, I consider his observations of particular value.

I have had in my practice two cases of this sort which I confess were very puzzling both as to exact diagnosis and treatment. In one of them, on account of the recurrence of spots of ulceration of the pharynx, I maintained for some time the conviction that syphilis was at the bottom of the trouble, notwithstanding no such history could be elicited. Soon, however, all doubt was cleared away by characteristic phenomena of pulmonary tuberculosis rapidly supervening. I consider it noteworthy, to say the least, that the pharyngeal implication was so decidedly manifested in advance of the pulmonary signs.

The other case presented, for a long time, unusual swelling, with paleness of the pharyngeal follicles, in addition to clubbing of the arytenoid processes. But no notable implication of either the larynx or the lungs was manifested until the glands of the pharynx presented marks of advanced disease.

As to the question of arresting the progress of disease by any method of local treatment, I have nothing to add.

Dr. F. I. Knight, of Boston, said that he had seen several cases in which there was deep ulceration of the pharynx in connection with pulmonary disease, but had seen only one in which the disease seemed primary in the fauces, though he had met with several in which the larynx seemed to be primarily affected. The case referred to was that of a gentleman who complained at first only of dysphagia. On examination of the fauces, the arches of the palate, especially on the left side, were seen to be studded with small granulations, which subsequently ulcerated and be-

came more or less confluent. Later physical signs of pulmonary disease were detected at the apex of the left lung. The case terminated fatally in a few months. Dr. Knight said that according to his experience one rarely meets with such an appearance in the pharynx or larynx as would lead one to suspect a deposit of miliary tubercle, though from some of the text books one might infer that such a condition was not uncommon.

TRI-STATE MEDICAL SOCIETY.

LACERATION OF THE CERVIX UTERI—THE HISTORY AND DIAGNOSIS. By E. C. DUDLEY, M. D., Former House Surgeon. to the Woman's Hospital in the State of New York.

The value of the operation for closure of the lacerated cervix will be generally admitted, but widely differing opinions exist; first, respecting the frequency of the lesion; second, respecting its extent when it does occur, and third, respecting its relations to the various erosions and so-called ulcerations of the cervix, of which it is held that this lesion is an important cause. January, 1879, in a paper* before the Chicago Gynecological Society on this subject, I considered the history, diagnosis and treatment; but notwithstanding this and other contributions to the same subject, some of them by eminent gynecologists, I am convinced that the history and diagnosis are even now not well appreciated by many. I shall, therefore, make use of the parts of the paper just mentioned, and of some additional notes made since its publication, together with two drawings, for the purpose of explaining more clearly.

CLINICAL HISTORY—During labor there must be some point in the cervix above which all the tissues of the uterus contract for the expulsion of the child, and below which they dilate for its exit. "After delivery examination shows, at a point above the normal site of the external os, about on a level with or a little below the plane of utero-vaginal junction, the familiar,

* Published in the *Chicago Medical Journal and Examiner*, March, 1879. The quotations which follow may be accredited to this paper.

hard, unyielding ring vaguely called the os." This cannot be the internal os, since its location is at or below the vaginal junction, while the internal os is considerably above. "Neither can it be the external os, since its location is too high; it must, therefore, be between the two, at the very point just mentioned, above which contraction, and below which dilatation occur in labor. It is, therefore, a temporary intracervical os, below which we must look for all that part of the cervix which during labor was compelled to undergo excessive dilatation, and expect there to find laceration, if it be present. Now without great care this portion of the cervix, which had been so stretched that it cannot immediately recover its contractile power, will be entirely overlooked, but it is always to be felt projecting into the vagina, to the touch not unlike a section of large intestine, and as destitute of contractile power as the sphincter ani muscle after extreme forcible dilatation by the method of Van Buren. It is usually one or two inches in depth, and so deceptive to the touch that the attempt has often been made to remove it by the finger for a clot of blood. After normal labor this slowly recovers its contractile power, and in a few days resumes its normal shape, and the external os is thereby restored." But if laceration occur nature has all the conditions for concealing the evidence of the lesion so artfully that to ocular examination the only signs which remain to mark its presence are not uncommonly congestion, enlargement, and the so-called ulcer or erosion of the cervix. The lacerated "diverging flaps," as Emmet says, "are at once forced in the directions offering least resistance, the posterior catching on the recto-vaginal wall and crowding backward into the vaginal cul-de-sac and the anterior forward in the axis of the vagina. The congested tissues about the temporary os, which we have called intracervical, meeting no resistance, now roll out, and this eversion, by obstruction to the circulation, causes the tissues to become so gorged with blood that they no longer have sufficient space for their accommodation within the uterus, and the eversion continues until tissue enough for the formation of a spurious cervix has been rolled out in the vagina, and until the temporary intracervical os has actually usurped the place of the normal os externum which had been destroyed."

The above figures not only show the manner in which the false cervix is formed, but they explain that its immense size is

in a large degree only apparent. Observe that the true vaginal attachment is at X, Z, the true vaginal portion of the cervix therefore must be below these points, but by the reduplication of the vaginal tissue it appears to extend to the apparent attachment X', Z', so that all below X', Z' appears as the vaginal portion of the cervix.

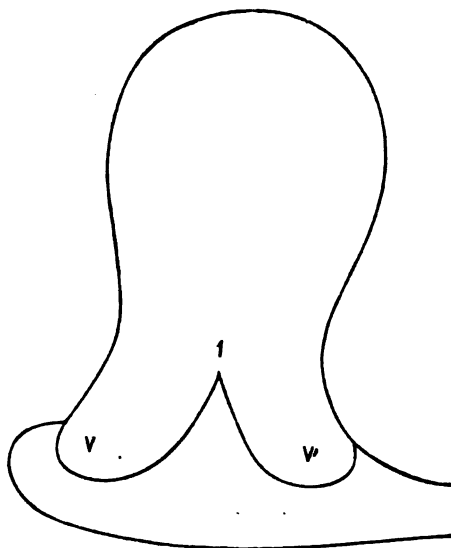


FIGURE 7—V and V' represent the margins of a recently lacerated cervix. V, the posterior lip, is crowding backwards into the posterior cul-de-sac; V', the anterior lip, forward in the axis of the vagina. 1 represents the site of the temporary intracervical os at the bottom or angle of the laceration.

This reduplication of the vaginal tissues from X, Z to X', Z' (Fig. 8) also accounts for the difference of opinion so common at the present day respecting the extent of these lacerations. I frequently meet with cases which have been diagnosed as very slight lacerations not involving the utero-vaginal attachment, but upon examination find that they extend sometimes an inch or more past this attachment into the vaginal tissues on each side. This very common deception is explained by the fact that the reduplicated vaginal tissues may, as indicated in figure 2, extend farther than the laceration, so that however great the laceration may be it does not extend past the apparent vaginal attachment. This deception may be exposed by placing the

patient in the knee-chest position, when the uterus will be carried by its own weight toward the diaphragm and the reduplicated vagina will unfold, and the laceration which appeared not to involve the vagina will be seen often to extend a considerable distance into the vagina on both sides.

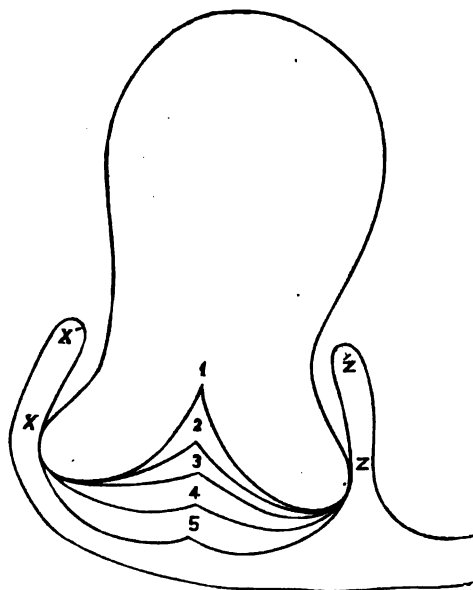


FIGURE 8.—This figure represents the false cervix composed of reflected vaginal tissue and outrolled or everted intrauterine tissue; this outrolling has taken place as represented by the curved lines forming the angles 1, 2, 3, 4 and 5. These lines indicate the gradual process of eversion. The intracervical os, point 1, has been rolled out to point 5, where it appears to be the external os, the vaginal attachment, points X and Z, now appear by a reduplication to be at points X' and Z', so that the cervix appears longer and larger than it actually is.

Immediately after the operation for closure of the lacerated cervix it is noticeable that the immense false cervix has been so much reduced that its size is often smaller than normal. Dr. Emmet, in his recent book, "The Principles and Practice of Gynecology," declares that he has been unable to account in full for this decrease. He explains it in part by the rolling in of the overtured tissue, by the relief from congestion due to hemorrhage, by the restoration of the normal circulation due to the readjustment of the flaps, by the loss of tissue in denuding

and by the rupture and emptying of the cysts of the mucous follicles so often present. There is, however, an additional and more important reason for this decrease, which in connection with the foregoing may complete the explanation. It is that the reduplication of the vagina is entirely disposed of by the operation, so that the true vaginal attachment is made to appear in its true relation, and so that the apparent attachment, which had contributed so much to the formation of the false cervix, is destroyed. A thorough understanding of this reduplication I am satisfied would clear up much of the dispute respecting the frequency and extent of this lesion.

The delicate intracervical membrane accustomed to the mild alkaline secretion of the uterus is now in contact with the irritating acid secretion of the vagina; the uterus, heavy from congestion, now falls to a lower plane in the pelvis, and is exposed to friction and to other mechanical injury; the formation of the so-called ulcer or erosion of the cervix is therefore inevitable, yet the cervix presents no evidence of laceration except the congestion, the enlargement and the so-called ulcer, because the diverging flaps are so modified that all indication of their previous contact has been obliterated.

DIAGNOSIS—This lesion was formerly known by its effects, and accordingly various names were applied to designate their extent and character: "erosion," "granular erosion," "papillary erosion," "ulcer," "follicular ulcer," "cockscomb granulations."

"There is a form of erosion solely dependent upon an irritating discharge from the endometrium or vagina, apt to occur in feeble and badly nourished subjects, and not very uncommon in virgins: a condition analogous to the familiar erosion and excoriation produced by prolonged nasal discharges on the upper lips of children. Such an erosion is readily distinguished from that of laceration by the absence of eversion, absence of marked cervical enlargement, by the presence of a normally shaped os externum, and by physical examination soon to be described. It may be cured by removing the cause. It is generally associated with laceration, and when associated its treatment should be insisted upon as preparatory to the operation."

But when the erosion or so-called ulcer appears on the enlarged and everted cervix, it is always dependent upon laceration. The word fissure ordinarily employed to designate laceration is misleading, and its introduction in this relation was, therefore,

unfortunate, since in the majority of cases the fissure which we should naturally expect to find on the lacerated cervix has been obliterated by the everted intrauterine tissue, which we have said forms a great part of the false cervix. If, therefore, we regard fissure as essential to the diagnosis we shall generally fail to detect the worst cases. Something more than digital and ocular examination, therefore, are required to demonstrate the presence of this everted false cervix. The most reliable means of diagnosis are the two uterine tenacula and the Sims speculum.

The tenacula are absolutely essential, and I am fully convinced that their importance is not appreciated by many who, neglecting their use, not only fail in diagnosis, but question the accuracy of others who succeed. With these instruments, Emmet first untied the knot and revolutionized almost the entire pathology and treatment of cervical disease. The late Dr. Peaslee, in his remarks on this subject before the N. Y. Co. Med. Soc., referring to the large number of cases of so-called ulceration, says 'that they were not recognized, for none of us knew anything about them till Dr. Emmet told us. It was he who, in a happy moment, brought the anterior and posterior surfaces together with tenacula, and instantly demonstrated that what we all supposed an ulceration was nothing more or less than a laceration.'

The following is quoted from the history of Dr. Emmet's first case, November, 1862. A typical case of so-called "ulceration." "The uterus was some four inches in depth, and an erosion extended about two inches in diameter over an enormous cervix. With great care this erosion had been healed several times, by maintaining the recumbent position for a sufficient length of time, but a relapse to the former condition recurred in each instance shortly after beginning to exercise by walking. I had almost despaired of being able to offer her any permanent relief, and attributed my want of success to the condition of her general health. While making a digital examination one day, I was puzzled to account for the greater width of the cervix in comparison to that of the body beyond, a condition I had for the first time appreciated. I placed her on her left side, and with Sims' speculum brought the cervix in view. I drew the posterior lips forward toward me with a tenaculum, but with no special purpose, when I was surprised to observe that it had decreased to nearly half its previous size. On lifting up the anterior lip with a tenaculum, in the other hand, so as to bring

the two portions in approximation, the outline of a cervix presented, of nearly a normal size. The difficulty was at once apparent, for the parts had rolled back within the uterine canal, and a deep lateral fissure became evident, which extended on each side entirely through the cervix and beyond the vaginal junction. On separating the flaps and forcing them back to their former position, I saw the tissues gradually roll out, and the cervix again present its previous appearance. There could then be detected no appearance of laceration, and with the reduplication of vaginal tissue over the sides of the uterus, as I have already described, the cervix presented a normal length above its apparent junction with the vagina. The remedy at once suggested itself; the operation was performed with the aid of my assistant."

The Sims speculum is also very important, as the ordinary bivalve puts the everted tissues on the stretch and prevents the approximation by the tenacula, and the ordinary cylindrical speculum does not afford sufficient room.

But the conveniences for using the tenacula and the Sims speculum are not at the disposal of every hurried practitioner, and the desirability, therefore, of a more ready means of diagnosis is manifest. Fortunately we have the means, and they have already been indicated. Simply translate the words ulceration or erosion with enlarged and everted cervix (*mark you the enlargement and eversion must be present*) into laceration of the cervix, and the diagnosis will be correct in every case. In this false cervix we have an explanation of the cause of many cases of subinvolution. I have repeatedly observed rapid and entire relief from the evils attendant upon subinvolution to follow the operation for the closure of the cervix. As already explained, this enlargement and eversion of the cervix was formerly supposed to be the result of hypertrophy, but since it has been demonstrated by the uterine tenacula that this everted tissue may be rolled back within the uterus whence it came, and that the cervix may thus be made to assume its normal size, hypertrophy of the cervix is rarely encountered. The word as applied to the cervix has almost disappeared from my case books.

Although the province of this paper is more specially the history and diagnosis, I shall, in closing, allude briefly to Emmet's operation versus the old methods of treating so-called ulceration with enlargement. The unsatisfactory results of the former

methods of long continued topical applications to the uterus are proverbial. Patients have been passed on from one doctor to another only to undergo the same routine exposure and application once or twice a week, sometimes improving, but often relapsing again into the same old condition of chronic "ulceration." The moral influence on the patient of all the exposure which long continued local treatment necessitates, cannot be other than pernicious, if indeed this moral influence be not productive of more evil than the disease itself. Fortunately we have a mild,* prompt and efficient substitute for much of this local treatment in the operation for closure of the lacerated cervix, to which the name Trachelorrhaphy has been given. Its indication is the presence of that which in former times would have been diagnosed ulceration of the womb, with enlargement of the cervix; in other words, the presence of the false cervix. The operation is of course liable to abuse. It may be performed contrary to the indications, but very soon it will take its place among the most satisfactory of modern surgical procedures. It is my opinion that if this operation were followed by none of the good results so confidently claimed it would be a justifiable procedure, inasmuch as it causes those tissues which have been the object of so much violent and fruitless treatment to be removed from the field of the speculum and from the approach of the porte caustique.

*At the Woman's Hospital, Emmett and others almost invariably use ether in this operation, but is generally unnecessary. Of the fifteen operations in my own practice since July, 1879, anæsthesia has been dispensed with in twelve, and the patients did not complain of the pain from the operation as much as of the cramped position and the pressure of the speculum.

ST. LOUIS MEDICAL SOCIETY.

[Reported for the JOURNAL.]

Central Lesions in Neuralgia.

DR. C. H. HUGHES—You will recollect, Mr. Chairman, the other night, when the discussion on neuralgia was up, I was challenged to produce authorities, and I promised to produce them for the statement I made in regard to the existence of central lesions in neuralgia. I have in my hand Rosenthal on Diseases of the Nervous System, and a translation of Velpeau's Introductory Lecture on Diseases of the Nervous System. "In dealing," says Rosenthal, "with neuralgia, the physician should, above all, determine both with regard to prognosis and treatment, whether it is merely the expression of a local irritation or the peripheral indication of central morbid process." I need not quote him further. Let me read briefly what Velpeau says: "We have sought especially to show that in a number of cases neuralgia is of central origin, and even in the cases where the cause of neuralgia is evidently peripheral, there is, at the end of a certain time; participation of the nerve centers. This participation explains the extension of neuralgia from the primarily affected nerve branch to the branches of the same trunk, and what is more frequent, to another nerve trunk. Secondly, the persistence or relapse of neuralgia in certain cases of section of the nerves along the tract, which appeared to be a locality of the pain. Apropos of these questions, we should discuss new theories based upon more or less precise knowledge of the peripheral branches; theories put forward to explain the persistence of neuralgia, after division of nerves, and their extension to other branches. In the presence of these two theories—one explaining all by central nerves of communication, and the other by the peripheral—we take sides with the former, not entirely disputing a certain part played by peripheral anastomosis. Nerve actions we have seen cause lesions, not only in the peripheral, but even in the central nerve ends. Experiments made by various writers have demonstrated that irritative nerve lesions cause sometimes myelitis, with paralysis. Nerve-stretching in a rabbit, a cat, and even simple division or cauterization have given rise to more or

less extensive myelitis. I have recalled to you the importance of these facts in explanation of so-called reflex paralysis and reflex atrophies, etc." He gives an example in one of his patients who had been struck in the lower part of the right leg by a piece of shell, who had not improved in two years; atrophy set in at the end of that time, finally involving the whole limb. Concerning this, he says: "What has taken place? There has been a change in one of the nerves, including the wound; secondly, a change in the medulla spinalis; and finally, muscular atrophy." He goes on to say: "The mechanism of reflex atrophy is very well illustrated in Guinea pigs, between the sciatic nerves; they have been divided only through the largest part of that nerve. In these cases the small sciatic nerve, which had not been touched during the operation, after a certain time atrophies, and the muscles supplied by it atrophy also." The phenomena of traumatic tetanus is next instanced, which we alluded to the other night, likewise reflex epilepsy, convulsions, contractions, and reflex hysteria, as explainable from this secondary irritation of the spinal cord. Not only Velpeau, but all authorities, coincide with him, and I was surprised to hear any one gainsay the possible persistence of central lesion from peripheral irritation. What I have read serves to fully confirm the statement made on the previous evening, that nerve-stretching should be undertaken with great caution.

A Unique Letter.

DR. GREGORY—I want to read a letter from a distinguished gentleman of Dr. Hughes' specialty. I wish to read it so that young anatomists may look the subject up and inform me how the particular thing which was claimed to have been attained in the particular case referred to in the letter was reached. Dr. Prewitt perhaps knows that some years ago he was consulted by a prominent young gentleman of this city for a neuralgic affection. It proved to be so annoying the patient went to one doctor after another.

He was my patient for a time. This young man, after trying a number of physicians, went East to consult some one there. Before starting, I advised division of the nerve that was implicated. He returned, claiming that the nerves had been divided by a distinguished gentleman. He would tell me that the cutting was done, but I was at a loss to know where the nerve was divided. The disease returned, and I requested him to write to

the physician, and find what it was that relieved him. In reply to a letter, he received the following answer:

"The nerves I cut in your case were the cutaneous branch of the eleventh and twelfth dorsal, and the first and second, third and fourth lumbar. I think it would serve you to have the operation repeated."

Yours sincerely,

WILLIAM A. HAMMOND.

I must say I am still puzzled about what was done, as I was before the letter was given me.

**On the Relations of the Placenta to Postpartum Hemorrhage, by
Walter Coles, M. D.**

MR. PRESIDENT:—In *postpartum hemorrhage* the general advice of obstetrical authorities is embraced in two injunctions; secure uterine contraction, and, if the placenta is still retained, see that it is promptly delivered. Now, since it is a universally admitted fact that a tonically contracted uterus cannot bleed, it must be conceded that the former of these aphorisms is a *sine qua non*. But the second, in regard to the removal of the placenta, admits of qualifications which we would do well to study.

First, let us inquire in what way the presence of the placenta within the uterus contributes to the hemorrhage or to its continuance. It is claimed that a retained placenta may produce hemorrhage for two reasons, (1) because it offers a mechanical obstacle to perfect uterine contraction; (2) because, if partially adherent, it directly promotes the bleeding. (When there is no detachment of the placenta there can, of course, be no hemorrhage.) It will be readily seen that two physical elements must necessarily enter into all cases of *postpartum hemorrhage*. There must be imperfect uterine contraction and partial or complete placental separation. As a rule, it will be found that the profuseness of the hemorrhage will be in direct ratio to the uterine inertia, and inversely proportional to the area of adherence of the placenta. That is to say, the flow of blood will be in direct proportion to the laxity of uterine fibre, and to the extent and number of ruptured vessels in the utero-placental site. If this be true, it is evident that in ordinary labor the presence of the placenta *in utero* can only promote hemorrhage in so far as it offers a mechanical obstacle to uterine contraction, whilst it really lessens it to the extent of its adherent surface. Although we are aware that this latter proposition is in direct conflict with high

authority, we think it tenable on physiological and clinical grounds, and hence we are justified in concluding that the only possible good which can accrue from a speedy delivery of the after-birth in *postpartum* hemorrhage is the mere mechanical one of clearing the cavity of the womb of so much foreign material in the same manner, and for the same reason, that we would sweep out so much clotted blood, simply to get rid of it, and in order to clear the way for local styptics within the uterine cavity.

I desire to provoke a discussion of this question, because I am satisfied that there is much to be said on both sides of it, and for the reason also that most of our text books offer very loose and empirical advice on the subject, which is well calculated to mislead students and practitioners who are taught to regard the presence of the placenta in the uterus as a thing necessarily hurtful, and to be gotten away at all hazards and as speedily as possible. Entirely too much stress being laid upon the retention of the afterbirth and too little upon the fundamental fact that the placenta has, in nine cases out of ten, nothing whatever to do with the bleeding, which is rather due to absence of uterine contraction, to *inertia*. In proof of this assertion, it is only necessary to recall the fact that in ordinary labors the retention of the placenta, whether partially or wholly detached, does not produce hemorrhage. Common experience teaches us this, and so long as we are convinced that the uterus is firmly contracted upon the placental mass, we all are accustomed to feel satisfied and await with composure and confidence the advent of secondary pains, and when finally, after a rest of fifteen or twenty minutes, the placenta is thrown off, its expulsion is accompanied by no abnormal flow of blood. Yet it must be evident to any mind that if the placenta were the offending cause in these cases, every mother would bleed nearly to death before this body could be gotten rid of in the course of nature.

We repeat that most of our obstetrical works are not sufficiently discriminating and explicit on this point; they do not explain with clearness the mechanism of the hemorrhage, and the part which the retained placenta plays in promoting it, but leave the student to infer that its retention is really the foundation of all the trouble. The practice in these cases partakes too much of a blind, routine procedure. For instance, Leishman, in his chapter on "Hemorrhage After Delivery," reminds the student in the first paragraph that "Retention of the placenta and consequent hemor-

rhage may be the result of mismanagement." Undoubtedly this is true in some instances, but upon reading a general statement like this upon the very threshold of the subject, the inexperienced practitioner, who naturally looks to his books for advice, will reason thus: if the hemorrhage is a "*consequence*" of retention of the afterbirth, and such retention the result of a palpable "*mismanagement*," then, of course, the proper course is to empty the uterus as the first step towards eradicating the mischief. And he will probably proceed to do this even in the absence of uterine contraction, a measure, which in the latter case, while accomplishing no possible good, would probably make matters worse. Still, in every event, whether there be inertia or not, the student has the same dogmatical advice to guide him, for, says this author, on the next page, "In all these cases the treatment is the same, and consists in the speedy removal of the placental mass," (p. 391). Dr. Playfair, whose work is the best recently published, lays the usual stress upon the importance of *emptying the uterus*. He says: "When the placenta is retained it is the more essential, as the hemorrhage cannot possibly be checked as long as the uterus is distended by it." Now, we ask, is this proposition of Dr. Playfair's true? Is it a fact that the mere bulk of an ordinary placenta (not abnormally adherent) can sufficiently *distend* the uterus to provoke serious hemorrhage? A moment's reflection will soon convince anyone to the contrary. Indeed, I think that the author has elsewhere in his work, clearly answered this question in the negative. We have already called attention to the fact that when the uterus contracts properly there is, in common labor, no hemorrhage during the interval between the birth of the child and the natural extrusion of the placenta, a period covering from ten minutes to half an hour, and hence the conclusion is irresistible that so long as the womb performs its part faithfully, the mere mechanical presence of the placenta is incapable of harm. So true is this, that Dr. Playfair, in his chapter on the "Management of Natural Labor," takes particular care to warn his readers against "*undue haste*" in removing the afterbirth, a practice which he very properly believes "tends to increase the risk of postpartum hemorrhage" (p. 279). He moreover adopts the rule laid down by McClintock, that fifteen or twenty minutes should elapse before making any attempt to deliver the afterbirth.

Before discussing this question further it would be well to

revert briefly to the mechanism of postpartum hemorrhage. What are the causes of hemorrhage and whence comes the blood? I answer that in flooding from the utero-placental site, the causes are various but the source of the blood is always the same. It is important to remember that dangerous and even fatal hemorrhage may occur postpartum, which is quite independent of the placenta, as in intra-uterine fibroids, laceration of the cervix, vagina, etc., but such being excluded from present consideration, leaves us to deal with but three classes of cases. The first of these, and by far the most common, is uterine *inertia*; the second is abnormally adherent placenta, in which case the placenta, through structural changes in the decidua serotina, becomes so firmly fastened to the uterine wall as to interfere with proper contraction of the organ. Here we may have a normal disposition on the part of the uterus to contract, but with an inability to do so, in consequence of the firm placental engraftment, the result being irregular and imperfect contraction. It is to this class of cases that what is known as hour-glass contraction usually belongs. There is also a third class of cases, due either to disease of the uterine fibres, to old uterine adhesions from previous inflammation, or to deranged innervation in which there is likewise defective contraction. The source of the blood in all three of the classes of cases under consideration is, not from the separated surface of the placenta, but from the torn ends of uterine vessels, the arteries and veins, both of which, but chiefly the latter, contribute to swell the torrent. The well known views of Hamilton and Sir James Y. Simpson upon the mechanism of hemorrhage in partially detached placenta have created an impression upon the professional mind in keeping with the great weight of their authority, and I am satisfied that the writings, more particularly of the latter, have contributed largely to erroneous views of practice. It was contended by Dr. Simpson that in uterine flooding the hemorrhage was exclusively venous, and that the blood escaped, not from the denuded uterine wall, but from the venous radicles of the detached portion of placenta. Of course, if the view of Simpson be accepted, which is unfortunately vaguely done by many, there could possibly be no better alternative than to put in practice his operation, and at once separate the entire placenta and thus cut off the flow. But there can be no question that Dr. Simpson carried his theory too far, and that the theory itself was based upon a misinterpretation of

facts. Such is now the almost unanimous conclusion of all modern obstetrical authorities who have given the subject special attention.

Now, Mr. President, I do not desire to be understood as advocating anything like a revolution in the matter under discussion, but my object is to call attention to certain practical considerations based upon strictly physiological data, and which I think are calculated to promote more rational views of practice; for the fact is that no physician or surgeon can successfully cope with any grave emergency, unless he has clearly fixed, in his own mind at least, substantial reasons for whatever he may feel called upon to do. Empiricism often succeeds, but in the majority of cases, and always sooner or later, it leads to disaster.

In order to state more clearly the relationship of the placenta to the etiology and treatment of postpartum hemorrhage, I would present and defend the following propositions:

1st. The placenta can only participate in causing postpartum hemorrhage when it is either of abnormal size, or abnormally adherent—thus offering a physical bar to uterine contraction.

2d. Simple retention of the placenta when detached, or partially adherent by *normal* attachment, does not of itself contribute to the production of hemorrhage.

The first thing for the practitioner to do in a case of postpartum hemorrhage, is to examine the uterus externally and ascertain its condition as regards shape, size and rigidity. These interrogations can all be readily answered by an experienced hand, placed upon the abdomen of the patient. If the uterus appear firm, but oblong and somewhat irregular in shape, he is justified in concluding that there is something within it that offers a mechanical obstacle to perfect contraction and he knows from the feel that this obstruction must be either in the nature of a tumor, or an abnormally adherent placenta. Having satisfied himself that the uterus is willing to perform its part, he gently passes a hand within its cavity, in order to ascertain the nature of the hindrance, and if he finds the placenta partially adherent he endeavors to detach it. This is sometimes a difficult matter, and may fail of perfect accomplishment, even in the hands of the most skillful. But the completeness of contraction and the stoppage of bleeding will in this case

be in proportion to the amount of placenta detached, for when this has been pretty thoroughly done, the uterine fibres are left free to contract, and the uterus will generally close down upon the placenta and hand and extrude both into the vagina. Again, the attendant may find on external manipulation that the uterine body is much larger and not so firm as it should be; it is also rounded and more uniform in its outline than in the case previously described. Here we have a mixed case, where there is partial inertia together with distension from constantly increasing blood-clots. The distension in this case directly contributes to the bleeding, and should be relieved by passing in the hand and turning out the coagula. This should however be preceded and accompanied by the usual remedies for inertia. It is not necessary, in a case like this, to worry over the placenta, (unless abnormally adherent) until the uterine atony is overcome, in which event the uterus will take care of itself, whether the afterbirth is within it or not.

To my mind, abnormal adhesion, or abnormal size of the placenta, constitutes the only valid reason for its manual detachment and delivery as a curative means in postpartum hemorrhage, inasmuch as these cover the only conditions in which the placenta is a factor in the production of bleeding. When, however, in much the largest class of cases, the flooding is due to uterine *inertia*, the relation of the placenta to the flooding is entirely different. Here the fault lies exclusively with the uterus, or rather with the nerves supplying the uterus; here there is no such imperative demand for active interference with the placenta, since it is simply a passive element in the case. The inertia is the thing to be gotten rid of and not the placenta, as is often taught and practiced. In order to accomplish this, ergot, friction over the abdomen, ice, inside and outside of the uterus, and other active measures should be resorted to, but forcible removal of the afterbirth is not one of these, unless, as we have said, it be deemed advisable to clear the uterus out, for the purpose of applying per sulphate of iron, vinegar or some other styptic directly to the bleeding vessels. But these remedies are not usually resorted to until many other readier methods have failed.

I have already said that if the placenta is detached, or not preternaturally adherent, it can of itself offer no obstacle to a perfectly safe degree of contraction. If any evidence were

needed upon this point beyond our daily experience in natural labor, the testimony of Ruysch, Wm. Hunter and many others of their school, who adopted the practice of leaving the placenta in utero for hours and days, till nature herself threw it off, without hemorrhage—would seem to definitely settle this point. Again, if the placenta be of normal adhesion, the less the area of surface detached the better, so long as atony continues, because the bleeding surface is at a minimum. Here the attachment of the placenta, so far from being an evil requiring to be broken up, is a fortunate circumstance, and is due to the inertia—to the fact that the uterus has not contracted sufficiently to slide it off. Forcible detachment with the hand under these circumstances is certainly very questionable practice, and should not be resorted to without due consideration.

Yet there are few of our text books that contain any clear instruction on this point. The late Prof. Bedford, however, has with his usual vigorous style, presented this matter in its true light. In his lecture on the management of "external hemorrhage," he says, "Flooding may occur when the placenta is completely or partially detached and yet within the uterine cavity, or it may occur after this mass has passed from the organ. It is a very singular fact that many practitioners imagine the *sine qua non* of success in the management of hemorrhage to be the removal of the placenta, and hence in these cases, the very first thing attempted is to extract this body, under the impression that with its delivery the flooding will cease. There never was a more perfect delusion. Why, gentlemen, the afterbirth in strict truth has nothing to do with the hemorrhage; it is not a bleeding surface, and whether it be within or outside the uterus is a matter of utter indifference, so far as the great object is concerned—the inducing of uterine contraction. The practice is founded upon vague and indefinite notions with regard, in the first place, to the true cause, and secondly to the true source of the hemorrhage."

It only requires a little reflection, I think, to convince us that this position of Dr. Bedford is unimpeachable, and that the successful treatment of post partum hemorrhage must depend upon rational therapeutics, addressed to the cause. In the hands of a skillful and vigilant physician it can scarcely ever occur that anything like a fatal hemorrhage could depend upon any other cause than *inertia uteri*. Other causes may induce severe bleed-

ing, but rapidly fatal hemorrhages are almost always the result of uterine atony. This is the class of cases which demand prompt action, clear judgment and discrimination, and these teach us that our efforts should be directed to the induction of uterine contraction, rather than in exciting our already nervous patient in unnecessary haste to detach and deliver the innocent placenta.

I am satisfied, Mr. President, that there is a great deal of misjudgment and false reasoning in connection with the management of the placenta in such cases. *Because* the hemorrhage frequently ceases on the forcible delivery of the afterbirth, such removal is credited with the result, but, as I have already said, the *post hoc, ergo propter hoc* argument in this case does not bear critical analysis; for when this happens, the stoppage of the hemorrhage is simply an incident due to the stimulation of the uterine walls during the act of detachment and delivery of the placenta. But since the presence of the placenta did not cause the inertia in the first place (exactly the reverse being the case), its detachment (when normally adherent) and delivery cannot possibly, within themselves, cure it. The same amount of intrauterine stimulation would produce the same result independently of the placental delivery. And, on the other hand, if the inertia be profound, and is dependent, as is often the case, on extreme nervous exhaustion, the manual detachment of the placental mass will possibly fail to awaken contraction; in which event the hemorrhage will be increased in proportion to the number of additional uterine sinuses thus laid open.

The fact is that the more we study the pathological physiology of these cases, the more apparent does it seem that the real cause of the *inertia* lies hidden back in the deeper recesses of the nervous system; causes that we have not yet fully fathomed, but which are doubtless intimately connected with the secret springs of the female economy. These must needs be touched before we reach the true physiological remedy, either in the way of prophylaxis or treatment.

DISCUSSION.

DR. W. JOHNSTON—Said he could not accede to the second proposition, that the placenta partially detached was not actively concerned in hemorrhage. The placenta was partially connected with the uterus, and the circulation was going on; it must produce hemorrhage. In that condition, the accoucheur should use all means possible to bring about uterine contraction. He might introduce his hand, and stop the flowing at once. He could not be justified in that course of action unless he was satisfied it would produce uterine contraction. The next best course was to stimulate the nerves running through the uterus; ergot was useful; cold applications would bring about contraction.

DR. G. J. ENGLEMAN—I am glad to hear that paper. I think as a rule, postpartum hemorrhage and retention of placenta are consequences of uterine inertia. It is true most text books say, "Remove the placenta," and some writers not in the text books insist upon the instantaneous removal of the placenta in postpartum hemorrhage, provided the hemorrhage occurs before the removal of the placenta. It is generally true that after the removal of the placenta, the hemorrhage ceases. But why? Either the placenta is removed by contractions of the womb, excited externally, or the hand is introduced into the womb, and it excites uterine contraction. If we apply pressure externally, we may excite contraction, we may introduce one hand, and with it compress the uterine fundus. That is an excellent way of stimulating contraction. Our object is to stimulate uterine contraction and the placenta is removed. I suppose there are cases where the retention of the placenta will cause hemorrhage, possibly where there is adherent placenta, and yet if the uterus contracts well, there will be no serious hemorrhage.

DR. W. L. BARRET—These are innovations of Dr. Coles; the idea of leaving the placenta in the uterus with impunity for an indefinite time, or the idea of not removing the placenta, for the prevention of hemorrhage, or the checking of hemorrhage. I wish there was more time to discuss the subject. I think it deserves to be fully discussed. If the uterine contraction is at all firm, the vessels are sufficiently ligated to stop the flow of blood.

Anything that prevents contraction of the uterus, will increase the chances of hemorrhage, and so long as the placenta or any mass remains there, preventing contraction, the danger of hemorrhage will be increased. It does not matter whether it is a tumor or something adherent to the organ; it increases the danger of hemorrhage. I do not pretend to dispute that there are a great many cases in which the placenta is probably partly separated from the uterus, and yet there is no excessive hemorrhage. The placenta is almost always in part separated, as in the last contractions, that expel the child.

DR. ATWOOD — I am satisfied that in all cases of postpartum hemorrhage there is a failure on the part of the uterus to contract. During the discussion I have recalled certain cases that fully convince me of the correctness of Dr. Barret's position. You must have firm contraction to close the mouths of the blood vessels. I remember one case in which after delivery, following the doctrine I had then read, to immediately remove the placenta, I carried my hand up, found the placenta within the os, put my fingers around it and removed it, supposing I had removed the entire placenta. I did not, as I think every obstetrician should, examine to see if any portion was left. My patient was attacked with an alarming hemorrhage. I immediately made firm compression on the uterus and applied cold water. I gave her brandy and water, but all to no purpose. It occurred to me I might have left a portion of the placenta in the uterus, introduced my hand, removed the remainder of the placenta, only about two inches, and the trouble ceased immediately. My patient made a good recovery. I wish to cite another case which has often caused me thought and trouble. I was engaged to deliver a certain woman, and being out of town, a neighboring midwife was called in. I visited the house and asked if the afterbirth had been removed; was told it had been. I gave the usual directions for management and left. I heard nothing more of the case for seventeen days, and was then sent for. I found her flooding violently. I gave her ergot and stimulants, but to no purpose. Then I introduced my hand and found a tumor near the fundus. With some difficulty I detached a large saucer full of what appeared to be placenta. The hemorrhage immediately ceased; there was no further trouble. These are proofs positive to me that the uterus could not contract as long as there was a portion of the afterbirth unremoved.

DR. COLES—I am sorry that I have read this paper so near the hour of adjournment. [He read extracts from his manuscript and asserted that he did not advocate the retention of the placenta for an indefinite time, he said it need not be delivered as a necessarily curative method in flooding.]

The further discussion of the subject was postponed.

SATURDAY, FEBRUARY 7, 1880.

Diabetes,

DR. T. F. PREWITT—I have a case I have thought of reporting, as it may be of some interest. The patient is an old gentleman, 75 years of age, who for the last six or eight years has suffered from diabetes, the amount of sugar in the urine being very large. In spite of the fact that he had this large amount of sugar in his urine, his general health kept pretty well. Some twenty-three months ago he was taken with a neuralgic pain in his right leg, which came on periodically with the regularity of clockwork; in the evening the pain came on, and would be very intense all night. Next morning at seven o'clock it would leave him, and he would be free from it during the day. He suffered intensely from this. About eight months ago it left the leg and appeared in the arm and shoulder of the same side as the leg that had been affected; he still had some pain about the foot, but not the intense pain in the leg that he had before. Some four weeks ago I was called to see him, and found him with *herpes zoster* on the right side of the head and face, coming to the middle line with an accuracy as though it had been mapped out, and covering the forehead, cheek, and also the roof of the mouth. He had a deal of pain from it. I felt some apprehension about his eye. It not unfrequently occurs that the eye has been lost as a result of the disturbance of the nutrition; the sloughing of the cornea destroying the eye. I watched it with a good deal of interest for that reason, but I told him it would run a course of about two weeks, and then get well of itself, whether I did anything for it or not. That proved to be the case. There has been a great deal of neuralgia in the supra-orbital nerve, from which he suffers a great deal now. There are some other features of interest. He has always been very

constipated, perhaps going for a week at a time without any action of the bowels. He has had for years a heavily coated tongue at all times, never, however, a very thick fur. Notwithstanding this state of affairs, his general health appeared to be good. He had a well developed physique—rather fleshy; still he had this constant coated tongue, an obstinate constipation and rather a poor appetite. I have heard him say he was in the habit of eating because it was necessary he should eat, not because he had a desire for food. I think there is some connection between the heavily coated tongue and constipation, and the diabetic condition. We know that the exact origin of diabetes is not yet settled, but there is some mal-assimilation beyond it all. The case is an interesting one from all the facts connected with it, especially on account of the amount of endurance of the old gentleman. He is gradually wearing out. I think he will never be able to get out of bed again. For the neuralgia in the leg he has tried a great many remedies. I have prescribed thirty, forty or fifty grains of quinine. Sometimes when he took fifty grains during the day he had no neuralgia that night. I have never got him to take quinine in the heroic doses I would like him to take it. He has a great aversion to it, and complains that it affects his hearing. If the pain was in both limbs I should have suspected a special origin, but it was unilateral and periodic, coming on in the evening at about seven o'clock with perfect regularity, and lasting till seven in the morning. He would be comfortable in the day; he has been in the habit of taking morphine to relieve relieve him.

DR. WESSELER asked if there was any emaciation.

DR. PREWITT—More or less. I cannot say there has been much till the last few months. He imagines he is now free from diabetes. Formerly he had his pants stiffened up with sugar. I tested the urine, and there is sugar in it, but far less than two years ago.

I look upon the neuralgia as the result of a debilitated condition of the system. The difficulty in controlling it is that his constitutional vigor is already undermined. It is doubtful whether any kind of treatment would have cured him for the very fact that the constitution is already undermined, and the vigor of his system broken down, and probably no chance but to alleviate it. He has been rather an abstemious liver.

DR. HURT—Has he the usual thirst of diabetic patients?

DR. PREWITT—He has not now, and while he suffered most from diabetes he was not under my care.

DR. HURT—There are two facts that are quite singular in this case, namely, the appetite has been poor, and at present, so far as the doctor is able to state, the thirst has not been very urgent. I believe in the majority of cases of diabetes they are remarkable for their disposition to gourmandize, and for their thirst for liquid. In regard to the pathology of diabetes, it always seemed to me it was perhaps the most obscure of any disease to which the human body is subject. It has its origin in the remote inception of the vital activities, where it is difficult to decide what particular system or organ, or what part of the organism is originally at fault. I am inclined to the opinion that it is a neurosis rather than due to mal-assimilation. It is true that mal-assimilation is present and is a prominent feature of the disease, but am inclined to think that this is owing in great measure to perverted innervation.

DR. WESSELER—I have seen and treated four cases of diabetes; two of them terminated fatally. Of the four there was not a single case that had the coated tongue that Dr. Prewitt mentioned, and I think that the coated tongue would only be present in old men, for in the case of young men they are generally greedy eaters and drinkers, and wear out before they are old. I think, when a man is seventy-five, he may pass a good deal of sugar, and not wear out so soon as a young man. In the four cases I saw, there was intense redness of the tongue, great thirst and considerable hunger; they could not be satiated with anything. The two last cases passed from under my observation; I presume one of them has terminated fatally by this time. Of all the remedies I used to relieve the sufferer of thirst, the best was bi-carbonate of soda and opium, giving ten to fifteen grains of bi-carbonate of soda and one of opium, three or four times a day. I do not think there is any cure for diabetes. I treated one patient, who seemed to get well, gained thirty pounds of flesh, and made arrangements to go to Europe, but suddenly died before leaving.

Removal of the Placenta.

DR. COLES—I trust the society will permit me to refer to the subject under discussion at the time we adjourned last Saturday

night. I read a paper at a late hour, and some points made in my paper I think, perhaps, were not clearly understood by some gentlemen. I should be sorry, indeed, if any member of the society should think I advocate absolute non-interference with the placenta in all cases of postpartum hemorrhage; such was not the position I took at all. The object of my paper was to point out the loose and imperfect manner in which most of our text books deal with the subject of postpartum hemorrhage, especially as regards its relation to the placenta. My object was to point out the true causes of postpartum flooding, and to draw attention to the fact that in many of the most dangerous of these cases the placenta is not an *active agent* in its production, and hence, that it is important before proceeding to deliver the afterbirth to determine whether the fault lies with it, or whether it is not due to uterine inertia. In which case, I contended, that harm rather than good might result from premature detachment and delivery of the placenta from a flabby, uncontracting uterus.

The Use of Pessaries.

DR. WM. JOHNSTON drew a diagram on the blackboard illustrating the relative positions of the uterus, rectum and bladder. He said the subject upon which he desired to speak was an old one, on which he differed from many higher authorities. He expressed his belief that the pessary did harm rather than good; and called attention to the comparative distances between the arch of the pubes, and the sacrum, in front of which was the rectum, arguing that if the pessary was used as a fulcrum, it could not, according to the laws of physics, do the good that was claimed for it. In his opinion the only pessary that could do good was the *stem* instrument of Simpson, introduced through the cervix into the body of the womb; that would hold the womb in position. No ring pessary could avail anything; he had abandoned them entirely. When there was relaxation of the vaginal walls, he used carbolic acid and sulphate of zinc, which tended to contract its tissues, and thereby give some support to the body of the uterus.

PRESIDENT MAUGHS said that Dr. Johnston had opened an interesting subject, upon which he was not quite alone in his views, since some respectable authorities held similar tenets.

DR. JOHNSTON said that he did not claim that the diagram was scientifically drawn.

DR. G. HURT—I was going to take exception to the diagram upon the ground that it is erroneous, and does not represent the normal position of the parts, which seem to be out of the true line. Instead of the uterus being a little posterior to the vertical line as represented in that diagram, it is just the reverse. And while it is true sometimes the application of the pessary increases the risk of flexion or misplacement of the uterus producing that which it is used to remedy, yet I am not disposed to reject that instrument entirely. Under all forms and under all circumstances, I have used the pessary very moderately in my professional career, and I have to say that in some cases was satisfied it was not useful, but I have introduced it in other cases in which the patient seemed to express satisfaction. I treated a lady some few years ago, who was subject to very painful and excruciating paroxysms of dysmenorrhœa, and with other remedies used in that case, I applied a pessary. As far as the examination revealed, the trouble arose from a retroflexed and tortuous cervix. This lady entirely recovered, and has since borne children.

DR. FAIRBROTHER—Do I understand Dr. Johnston to say that it is the stem pessary which is the greatest humbug ever foisted on mankind?

DR. JOHNSTON—No, sir; the only one that can do any good is Simpson's stem pessary, and it should be watched with a good deal of care. All the others I condemn.

DR. FAIRBROTHER—Mr. President, this is the same line of argument that was followed in a paper which was read here last fall. In this paper, and I believe in some of the remarks which followed it, pessaries were denounced as a dangerous imposition upon credulous women, and as mere toys to tickle the fancy.

It was certainly with a feeling, something akin to pain, that I listened to this sort of talk, because at that time I had under my care a remarkable illustration of the good effects following the use of the pessary. It was in the case of a woman who made her living by washing. The uterus was prolapsed so that the os projected beyond the external labia. This condition had been

growing for years, until at last she was disabled from work, and she sought relief. The uterus was replaced, a simple ring pessary being introduced into the vagina, and the woman returned to her work entirely free from the pains and forebodings that were rapidly wearing out her life. This is only one case; you have all seen similar ones. I am speaking only of procidentia—saying nothing of the vast amount of good to be obtained by their skillful use in the various flexions and versions. There certainly can be no doubt of their utility in such a case as the one I have instanced.

DR. COLES—I think there is no doubt but that pessaries are often employed when they are really of no advantage, and sometimes when they are a positive disadvantage to the patient; but there are many cases, as remarked by Dr. Fairbrother, where a well fitted pessary is a *sine qua non*. I am reminded of a case, where during the past week, I have enabled a woman to resume her daily duties whose life was before that a burden to her on account of prolapsus with retroflexion. In order to derive satisfactory results from a pessary, it must be judiciously selected and properly applied. The same instrument does not suit every case, nor does every case of womb trouble demand a support of this kind. Dr. Johnston is in error both in his premises and conclusions; his drawing incorrectly represents the relations of the parts, and he is entirely at fault as to the manner in which the ordinary pessary subserves its purpose. With such crude views of their application, it is not remarkable that he has become discouraged with their use. The doctor represents the ordinary lever instrument of Smith and Hodge as resting upon the pubes anteriorly and passing upwards and backwards in a straight line to the hollow of the sacrum, the upper and posterior extremity pressing directly against the rectum. This however, is not as it should be. The pessary, like the forceps, must be adapted to the curves of the vagina and pelvis, as without these, and without perfect adjustment, either instrument is capable of harm.

The normal anatomy of the pelvic organs must be kept clearly in mind, as well as the mechanism of uterine displacements, before any attempt is made at reposition and retention of the womb by mechanical means. I prefer the pessary of Hodge or Smith to any others. In both of these instruments

there is a double curve, well adapted to the natural curve of the vagina. This curve is essential, not only to keep the instrument in place, but to the comfort of the patient; resting against the pubes in front, it projects backwards and upwards, not directly against the rectum, as Dr. Johnston asserts, but curves upward until its lateral bars lie *parallel* with this organ, while the superior crossbar of the pessary rests in and supports the vaginal fold reflected between the rectum and uterus posteriorly. Thus adjusted, and if of proper length, the posterior pressure of the instrument, instead of being confined to one point, is shared partly by the rectum, but chiefly by the superior-posterior *cul-de-sac* of the vagina. The instrument, thus placed, has no absolute fixed point of rest posteriorly, but slides gently up and down with every motion and respiration of the patient. Great judgment and discrimination should be exercised in selecting pessaries; sometimes a number have to be tried before a proper fit is secured. To act comfortably and physiologically it must have the proper curve; if too short it is worthless; if too long it is painful and may become dangerous.

My experience with the stem pessary has not been large, but from what I know of it, when I have occasionally employed it for amenorrhoea, I would unhesitatingly condemn the instrument as impracticable and hurtful. As to anteversion pessaries, I have never seen one yet that would accomplish and secure the desired end. It should be remembered, however, that no pessary is intended to correct a malposition of the uterus by its own inherent power. Its province is to assist in holding the uterus in its proper place, *after* the physician has repositioned it. This step should always precede the introduction of the pessary, and should be thoroughly done, a point which is frequently overlooked both in debate and in practice.

DR. T. F. PREWITT—I think Dr. Johnston's condemnation of pessaries in general is too sweeping, and his indorsement of the stem pessary too generous. I agree with him in the fact that in many cases we find great difficulty in supporting the uterus with the pessary proper. If you take a retroflexed and retroverted uterus, I think all of us will agree that the pessary answers our purpose very indifferently in carrying it up and forward. By reason of this very insufficiency in the leverage we bring to bear upon it, the fundus under these circumstances is probably thick

ened, congested and the pessary does not reach high enough to lift up the weight of the body of the uterus and carry it forward. But in a simply retroverted uterus that is disposed to tip back when one places it in position, I think in a majority of cases a well adjusted pessary would retain it there. Where we have a retroflexed uterus, Dr. Johnston would dispense with the pessary, but he does not tell us what he would do. As to the stem pessary, I think it a dangerous instrument.

DR. BOND said that he had no doubt but that pessaries served a good purpose. He was satisfied that pessaries had their greatest application in retroversion rather than in retroflexion. The instrument must be adapted to the curvature of the vagina. It must be such that when the force is exerted upward it may be between the uterus and rectum, neither too much against the one nor the other. The instrument is kept in place and assisted in its work as a supporter by the natural contractility of the vagina, which is normally a closed canal, its walls possessing decided muscular contractility, and these muscular fibres so arranged that their tendency is to contract from below upwards, thus exerting an upward pressure upon the pessary which is transmitted to the uterus.

DR. C. W. STEVENS condemned the use of pessaries when they had been employed for the purpose of correcting any other malposition of the uterus than prolapsus. He did not believe that the mere introduction of any of the Hodge modifications of pessary could correct even temporarily any malposition; that it might for a short time hold the uterus in a certain position, he could not dispute, but that it corrected a malposition he very much doubted. The fulcrum or lever rested on an unstable foundation; the rectum was full at one time and empty at another. He conceded that in some cases the ring pessary had afforded great relief, but failed to recognize the utility of Hodge's instrument.

Book Reviews.

A SYSTEM OF MIDWIFERY. INCLUDING THE DISEASES OF PREGNANCY AND THE PUERPERAL STATE. By WM. LEISHMAN, M. D., Regius Professor in the University of Glasgow, Etc. Third American Edition. Revised by the Author. With Additions by JOHN S. PARRY, M. D. [Henry C. Lea, Publisher. Philadelphia, 1879.]

When the work of Prof. Leishman made its first appearance, six years since, under the able editorship of the late Dr. J. S. Parry, of Philadelphia, it was well received by the American profession, and has met with a large sale. In a somewhat extended review, which appeared in the May number of this Journal (1874), we gave this work a full and fair criticism, pointing out what we then considered many of its merits and defects—a good many of the latter being doubtless incident to the preparation and printing of a new volume. The *second* edition, which came out some years since, was a great improvement on the *first*, and the present issue, although it has lost the careful and learned supervision of its lamented American editor, is still better.

The notes and additions of Dr. Parry, so essential to the American student, are retained in the present edition. The author states in his introduction that whilst he considers these addenda for the most part valuable, he does not commit himself to all of them. It is to be regretted that he does not do himself the justice to incorporate many of these into the body of his book, for they undoubtedly embody some of the most advanced and valuable facts in midwifery. For instance, while we can readily understand why our English cousins, from long experience and habit, still adhere to the custom of placing the parturient on her left side instead of on her back, as we prefer, we cannot conceive how they should not only prefer the inferior forceps, but that their bigotry should lead them to utterly ignore all instruments of American manufacture. This is a matter too important to be decided by prejudice, and we are quite sure that no practical man, after trying the various patterns of forceps, can fail to award the palm to America in this respect. We have frequently delivered women, with ease, by means of Hodge's forceps, where repeated trials with English and Scotch instruments had signally failed.

Taking the author's work throughout, it must be confessed that he has presented his readers with a very thorough exposition of the entire practice and science of midwifery. The chapters are all fully and conscientiously written, and set forth in a

pleasing and easy style most that is worthy of note on each subject treated of. The scientific part of the work is exceptionally excellent. Many practical points, however, are not handled in a manner best calculated to meet the wants of students. In this respect Leishman's treatise is not as well adapted for a college text book as some others, and for the reason that on many important questions there is rather too much non-commitalism about it; there is a lack of that individualism in points of practice which is so characteristic of Meigs, Dewees, Denman, and many older writers, the effect of which is to leave the inexperienced in doubt, after all that is said, as to what is the proper course to pursue in any given emergency. The fact, however, that the author has compiled the leading theories on most disputed points, renders his work peculiarly suitable as a book of reference for practitioners and more advanced students, who are presumed to be competent to form a judgment of their own. As an illustration of this criticism it is only necessary to read the chapter on *puerperal eclampsia*. In treating of the pathology of this disease the author gives a *resumé* of the various and conflicting views that have been entertained by the most eminent authorities (excepting that he touches lightly on the neuropathic theory), but he fails to emphasize his own opinions, either as to pathology or treatment; certainly not sufficiently so, to lead the inexperienced reader to feel that he has a sure footing to stand upon in the face of such an appalling emergency as this. The whole chapter, while it contains a great deal in doctrine and advice to challenge our approval, is nevertheless calculated to bewilder and confuse the student. In the first place the writer starts out with a definition of *puerperal eclampsia*, rather broad for practical purposes. He says: "Under the designation of *puerperal eclampsia* are included not only such instances of the malady in question as are manifested during the *puerperal* period, but all cases, without exception, which are observed in the course of pregnancy, during labor or after delivery." According to this, if a woman has a fit at any time between the moment of her first conception and her death, even though this should be of old age, it might be denominated *puerperal eclampsia*.

Under the head of *treatment* the author hedges his advice about with so many *provisos* that it is really difficult to know what he would do in any given case. He extols the lancet in one sentence, and in the next so strongly cautions the student against its use as to confuse and frighten him. On the whole the reader is left to infer that blood-letting is not held in high esteem. He speaks of it as the "*old method*," and compares it with the treatment by *anæsthetics*, quoting the thesis of M. Charpentier, in which the latter claims a mortality of 35 per cent. in bloodletting, against only 11 per cent. under *anæsthetics*. Nothing however is said about combining the two methods, so essential

in a large proportion of cases, unless indeed such a construction can be placed upon the following vague sentence, which is unfortunately typical of too many throughout the work, wherein the author says (page 665), "We must carefully avoid moreover the danger of adopting any particular method of treatment to the exclusion of others."

The chapters on *puerperal fever* are among the best, and give a very clear and satisfactory account of this interesting disease. The author, however, strangely omits any mention of the fever thermometer, so useful in all the stages of this disease, not only as an early aid to diagnosis, but in taking our bearings as to the progress of the case.

Although there are many subjects on which the author has failed to make his own views sufficiently explicit to satisfy those who read this work expecting to find straightforward practical teaching, it is nevertheless a most complete and valuable compendium of nearly all that is new and authoritative in midwifery. And, although for the reasons we have stated, not the best book for new beginners, it is one of the most valuable additions which the obstetrician could make to his library. The publisher, as is his habit, has done his part faithfully.

W. COLES.

THE PATHOLOGY AND TREAEMENT OF VENEREAL DISEASES. By FREEMAN J. BUMSTED, M. D., L. L. D., etc. Fourth edition, revised, enlarged, and in great part rewritten by the Author and by Robert W. Taylor, A. M., M. D. [H. C. Lea, 1879]

The success achieved by the preceding edition of this work was well deserved. Every American practitioner has had cause to thank the author for correct information of the nature and treatment of venereal maladies. The observation, investigation and treatment of syphilis, have of late years acquired new impetus throughout the civilized world, and as a result there accumulated a vast fund of knowledge which has been epitomized and utilized in the preparation of Bumsted's fourth edition. No man in America was as well fitted to perform this task as the author whose individual study and research eminently qualified him to weigh and sift the experience of others, so as to unerringly present the state of our knowledge upon the subject. And if anything were wanting to consummate this desirable result, the difficulty was satisfactorily overcome by the conjoined assistance of Dr. Robert W. Taylor, whose work on bone syphilis issued in 1875, gave him prominence as a syphilographer.

A leading fault in many medical works of the present day is elaborate theoretical dissertations conveyed verbosely in transcendental style, bewildering to the average medical mind and guiltless of practical and useful instructions. This objection does not apply to the work under review. It is a genuine clinical record condensed and concise, yet presented in a delightfully

flavoring style which arrests and enchants the attention, while it sharply conveys the lesson. The index is complete and in a moment one can obtain the suggestive idea or information desired.

LEGRAND ATWOOD.

NOTES ON THE TREATMENT OF SKIN DISEASES. By ROBT. LIEVING, A. M., M. D. Cantab, F. R. C. P., London. Lecturer on Dermatology to the Middlesex Hospital Medical School. [Wm. Wood & Co., New York, publishers.]

This small work on the diseases of the skin admirably answers the purposes for which it was written, viz: to furnish students and general practitioners with a concise and correct account of the etiology, diagnosis and treatment of cutaneous diseases. It is a truthful and reliable reflex of modern dermatology in a very condensed and practical form, and the treatment recommended for the various forms of diseases is as good as any that have as yet been suggested. The long list of valuable and well selected formulæ at the end of the work has been collected from personal experience and the writings of numerous distinguished authors, and is invaluable to persons who only occasionally have to treat diseases of the skin, and consequently cannot be expected to understand the appropriateness of different remedies and combinations of remedies as thoroughly as specialists and men of more extensive experience do.

THOS. KENNARD.

DISEASES OF WOMEN. By LAWSON TAIT, F. R. C. S. Second edition, thoroughly revised and enlarged. Specially prepared for "Wood's Library." [Wm. Wood & Co., New York, 1879, pp. 192.]

This is one of the "dollar series" of publications for which the profession has to thank the enterprise of Messrs. Wood & Co., by whose liberality a valuable library can soon be accumulated by every member of the profession, no matter how restricted his resources are, at a comparatively trifling cost. Dr. Tait's work on the diseases of women, has long been known as a valuable contribution to this branch of medicine, and while not as full as some others, it is nevertheless written in a very concise and clear style, in which the author imparts his own views and ample experience with commendable perspicuity. As he states in his preface, the book is intended to impart practical information, founded on individual experience. In these days of book making, when so many authors fill their pages with undigested excerpts, and manage to dodge the responsibility of recording positive views of their own, a treatise like that of Dr. Tait should be appreciated. It touches, too, on many subjects not usually included in works of this character, rendering it, on the whole, an exceedingly valuable contribution to our literature on the subject of female diseases.

W. COLES.

Books and Pamphlets Received.

A Practical Treatise on Urinary and Renal Diseases including Urinary Deposits Illustrated by Numerous Cases and Engravings. By William Roberts, M. D. Third American, from the Third Revised and Enlarged English Edition. 8vo. pp. 625. [Philadelphia: Henry C. Lea, 1879.]

The Advantages and Accidents of Artificial Anæsthesia: A manual of Anæsthetic Agents, and their Employment in the Treatment of Disease. By Laurence Turnbull, M. D., Ph. G. Second Edition, Revised and Enlarged, with twenty-seven Illustrations. 12vo. pp. 322. [Philadelphia: Lindsay & Blakiston, 1879.]

American Health Primers. Brainwork and Overwork. By Dr. H. C. Wood. [Philadelphia, Presley Blakiston, 1012 Walnut Street. 1880.]

On the Internal use of Water for the Sick, and on Thirst. A Clinical Lecture at the Pennsylvania Hospital, October 25, 1879. By J. Forsyth Meigs, M. D. [Philadelphia: Lindsay & Blakiston. 1880.]

Priority in the Anæsthetic use of the Bromide of Ethyl. By R. J. Levis, M. D. From the "Philadelphia Medical Times," Feb. 14, 1880.

Hygiene and Education of Infants; or How to Take Care of Babies. By the Société Française D' Hygiène, Paris, France. Translated from the French. By Geo. E. Walton, M. D. [Cincinnati: Robert Clark & Co. 1880.]

M. Paquelin's Thermo-Cautery, with Willson's Antithermic Shield, in Epitheloma of the Cervix Uteri. By H. P. C. Willson, M. D. Baltimore, Md.

Malignant Degeneration of a Fibroid Tumor of the Uterus. Large False Aneurism in the Substance of the Growth. Drs. Albert N. Blodgett and Clifton E. Wing, Boston.

Responsibility Restricted by Insane Delusion. By T. L. Wright, M. D. Bellefontaine, Ohio. [Reprinted from the Cincinnati Medical News, Nov., 1879.]

Sanitary Organizations of Nations. By Henry I. Bowditch, M. D. [Reprinted from the Boston Medical and Surgical Journal]. Cambridge: Printed at the Riverside Press. 1880.]

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—FEBRUARY, 1880.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	26.0	33.0	18	28.0	38.0
2	21.5	23.0	19	23.5	33.5
3	25.0	28.0	20	26.0	36.5
4	17.5	35.5	21	34.0	47.0
5	26.5	41.0	22	34.5	64.0
6	25.5	49.0	23	38.5	53.5
7	25.5	36.0	24	44.0	67.5
8	27.5	55.0	25	55.0	59.0
9	26.5	45.0	26	47.0	68.0
10	36.5	52.5	27	49.0	66.5
11	44.0	59.0	28	41.0	58.0
12	43.0	46.0	29	20.5	30.5
13	26.0	30.0	30		
14	14.5	35.5	31		
15	25.0	38.0			
16	35.0	56.0			
17	46.0	61.0			
			Means	32.0	47.1
			Monthly Mean	39.5	

Quantity of rain and snow, 2.95 inches.

MORTALITY REPORT.—CITY OF ST. LOUIS.

FROM FEBRUARY 8, 1880, TO FEBRUARY 21, 1880, INCLUSIVE.

Ovarian Tumor.... 1	Exhaust. f'm Lab. 1	Convulsions & Trismus Neonatorum 18	Placenta Prævia... 1
Measles..... 5	Inanition, Want of Breast Milk, etc. 3	Hydrocephalus and Tub. Meningitis. 1	Apoplexy..... 5
Syphilis..... 1	Alcoholism..... 4	Meningitis & Encephalitis..... 9	Cyanosis and Atelecstasis.....
Scarlatina..... 2	Rheumatism & Gout 1	Other Diseases of the Brain and Nervous System 8	Premature & Prematural Birth 0
Pyæmia & Septicæ 2	Cancer and Malignant Tumor..... 8	Cirrhosis of Liver and Hepatitis... 7	Deaths by Suicide 2
Erysipelas..... 3	Phthisis & Tuberculosis, Pulmon. 34	Enteritis, Gastroenteritis, and Peritonitis, and Gastritis..... 9	Deaths by Accident 7
Diphtheria..... 7	Bronchitis..... 8	Bright's Disease and Nephritis... 2	Congen Deformity... 9
Membran's Croup. 4	Senility..... 8	Other Diseases of Urinary Organs. 0	Total Deaths from all Causes..... 254
Whooping Cough. 3	Pneumonia..... 41	Atheroma Arta. 0	Total Zymotic Diseases..... 50
Diabetes Mellitus. 0	Other Diseases of Respir'y Organs 9		Total Constitutional Diseases..... 57
Umbilical Hem'ge 2	Osteomyelitis..... 1		Total Local Diseases..... 118
Typhoid Fever... 3	Marasmus—Tubes Mesenterica and Scrofula..... 13		Total Develop'tal Diseases..... 20
Cerebro Spinal Fe. 0	Aneurism..... 1		Deaths by Violence 2
Remittent, Intermittent, Typho-malarial, Congestive & Simple Contin'd Fevers, 6			
Puerperal Fevers. 2			
Diarrhœal Diseas's 3			

CHAS. W. FRANCIS, Health Commissioner.

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Original Contributions.

ARTICLE VIII.

VESTIGAL AND URETHRAL CALCULI SUCCESSFULLY REMOVED BY
LITHOTRITY AND MEDIAN LITHOTOMY. By W. HUTSON FORD,
M. D., of St. Louis.

CASE I.—*Lithotrity; Calculus Impacted in the Prostatic Urethra
returned to the Bladder and Crushed in two sittings.*

Mr. W. M., æt. 40; married; salesman; of short stature but
athletic build; temperate in all his habits. Had never suffered
from gravel. His father and sister, however, had been so affected,
and one of his children has had well marked brickdust deposit
in its urine when only a few months old. In October, 1877, Mr.
M. consulted Dr. P. G. Robinson, of this city, for some uneasy
feelings in the bladder, especially pain during the last mo-
ments of micturition, and afterwards. Had never experienced
anything like nephritic colic. A week or so after this he
brought a calculus of the size of a small hazel nut which he had
passed. The urethra was spacious. He had never had gon-
orrhœa. Shortly after passing the calculus, he presented himself
again with a recurrence of the symptoms, this time accompanied

with almost constant uneasiness increased during micturition, and some dribbling. Dr. Robinson found a stone lodged in the prostatic urethra too large to pass, which he thrust back into the bladder. I visited the patient at Dr. Robinson's request, and sounded him for stone on the 31st of October, 1877. A single calculus was detected in the bladder. Thompson's lithotrite (fenestrated) was introduced at the same sitting, but I did not deem it advisable to crush. He was ordered some pills of blue mass, calomel and podophyllin on one or two nights, with twenty grains of quinine daily.

November 8.—Having retained his water for about two hours, Dr. P. G. Robinson kindly assisting, the patient was placed upon his back, with the hips elevated on a pillow, the lithotrite passed and the stone seized without difficulty. It measured on the shaft of the lithotrite nearly seven-eighths of an inch in the direction in which it had been seized. Three or four crushings were made, and the instrument being cleared as well as possible, was withdrawn from the bladder; but in spite of the efforts made to clear the bladder, a good deal of detritus still remained between them, and I was sensible that the urethra was scraped more than I liked during the withdrawal of the lithotrite. No anæsthetic was administered. The patient was kept rigorously in the recumbent posture until the third day, and allowed to make water only while lying on the back. He felt no annoyance during the first forty-eight hours. On the afternoon of the third day, however, he was taken with a severe rigor, followed by high fever. This was effectually combatted with quinine and veratrum viride, and he continued to do very well. On the fifth day he had another rigor with fever, the tongue became thickly coated, and he began to feel discouraged and weak. I therefore determined, in accordance with Thompson's advice under similar circumstances, not to wait for a disappearance of the symptoms, but to finish the crushing at once. I did so next day, pulverizing all the fragments I could find. He had no recurrence of the rigors, and began to amend in a day or two. Ten days afterwards he resumed his business duties.

The calculus was of uric acid, scarcely, if at all, incrustated with phosphates, and very hard, requiring sharp turns of the lithotrite to crush it. An effort was made to collect all the fragments, but much of the finer particles was lost, so that it was not possible to determine the weight of the entire stone. The

points especially observed in the treatment of the case were to forbid any attempt to pass water in the erect posture *at all*, until after the last crushing, the patient being kept recumbent for two days after each crushing, and the intervention with the lithotrite for a final crushing as soon as a disposition towards recurrence of the rigors became obvious, and cystitis began to manifest itself. In such a condition, says Thompson, it is a mistake to wait and treat the cystitis by the usual remedies, which will be useless as long as the exciting cause remains. The fragments should be at once broken up in one or two sittings, and if not passed readily by the patient, removed by Clover's suction apparatus. We would now use Bigelow's, which is really an important *development* of Clover's aspiratory tube, or operate from the first by the method lately introduced by the skillful Boston surgeon. The case detailed was by no means a difficult one. The patient was in excellent health. There was no cystitis nor cloudiness of the urine, nor any urethral or prostatic disease, and through the sagacity of his attendant physician, Dr. Robinson, the diagnosis was positively made as early as it ever can be. I have concluded to place it on record in view of the extreme rarity of lithotrity in the West, notwithstanding the claim of this mode of dealing with stone upon the resources of surgery. In a statistical publication by Andrews and Lacy, of Chicago, in 1877, issued before the date of the above operation, entitled "The Mortality of Surgical Operations in the Upper Lake States," I find the following under the caption "Lithotrity:" "This operation has been inexcusably neglected in the Lake States. I have record of only one case, which was, however, successful." Within the last two years a disposition is evident among surgeons to operate by lithotrity in appropriate cases, and this mode of dealing with stone is now so much better understood than formerly, and its true place so much more exactly defined with regard to lithotomy, that it will doubtless grow in popularity. One of the principal dangers of the operation, viz., impaction of fragments in the urethra, will become a thing of the past, if we can venture to extract all the fragments at one sitting by a suction apparatus, such as Crampton, Clover, Thompson, and Bigelow more especially, have now developed, and many surgeons are at present experimenting with. The patient whose case is above detailed, now two years after operation, remains free from

stone. He suffered a little for a few weeks after the crushing, with irritability of the bladder, but this passed off, leaving him in perfect health.

CASE II.—*Large Urethral Calculus of long standing ; extraction through the perineum ; another calculus removed from the bladder by Median Lithotomy on the same occasion—Internal Urethrotomy.* Mr. T. T., æt. 22, married, with children ; a country merchant ; tall, well developed and strong, though his face betrays signs of long continued suffering. Presented himself for a preliminary examination Sept., 18, 1879. Circumcision had been performed sometime before for a narrow preputial opening. Bulbous bougie No. 21 F. is arrested at $2\frac{1}{2}$ inches down—No. 16 barely passes. The urethra is contracted beyond, but so exceedingly sensitive that it was not possible to make an examination of the deep urethra without anæsthesia. The stream of water is very small, the urine neutral in reaction, turbid, highly ammoniacal when freshly passed. Has had frequent attacks of epididymitis on one side at a time. Has never passed any blood, and has been able to ride on horseback with but little inconvenience, if any, until lately.

Defecation for a long period has been painful to him, especially when the bowels were costive. Has never had a gonorrhœa. The urethra is evidently congenitally narrow, while the external genital organs are well developed. The prostate is tender to the touch and placed higher up than usual, being also somewhat swollen.

Being engaged in business, he was unable to remain in the city more than a day or two, and was advised to return as soon as possible for a formal examination under ether, meanwhile washing out the bladder with warm water twice a day and using some anodyne suppositories. His bladder trouble had begun when he was a boy of eleven or twelve years of age and had steadily increased since then. No examination of the urethra had ever been made. Having left the city, he wrote me about a week later, that the bladder washings gave him great pain, and that he was suffering much more than when I saw him. I directed him to come back to St. Louis as soon as his affairs allowed, as it was necessary to make a thorough diagnosis of his case before I could advise him further.

About Oct. 3d he returned to the city, and spent a few days visiting places of attraction and transacting business, moving

about much more than was usual with him. Having called on him on Oct. 5th, I found that he was suffering from an epididymitis of the left side, which rapidly grew worse, requiring active treatment. A diagnostic exploration was therefore postponed until twelve days later.

Oct. 18th, 3 p m.—Ether having been administered, Drs. A. A. Rowland, N. B. Carson and Rubey assisting, the results obtained were as follows: The meatus barely admits No. 21. F. Two and three quarter inches down there is an annular structure No 16; an attempt to pass the same or a smaller instrument was unsuccessful.

Thompson's searcher could not be passed, nor could the bladder be reached with a small conical sound. The left forefinger in the rectum encountered a hard, roundish, and somewhat nodulated tumor lying in the mesial line anterior to the urethra, about an inch in thickness and just under the internal fibres of the sphincter ani. This tumor was scarcely movable, and a portion of the membranous urethra and the apex of the prostate could be easily felt beyond it.

The tip of a bulbous bougie could be made to pass between the tumor and the finger in the rectum, and the point of Thompson's searcher could be made to pass to a certain distance, but was so strongly deflected laterally by the mass, to the patient's right, that no entrance could be gained or was attempted, into the bladder. Both instruments produced an unmistakable grating sensation, and sound of rubbing audible to the bystanders. A large urethral calculus lay encysted in and near the lower portion of the membranous urethra. Of course it was not possible to proceed further, or at least was not deemed advisable to attempt to enter the bladder with the sound or otherwise, as any search for a stone possibly lying there could be readily instituted during an operation for extracting the urethral calculus.

The manipulations caused no particular annoyances at the time, but a day or two afterwards the epididymitis showed symptoms of recurrence. He was treated with alkaline diluents and warmth to the hypogastrium, with elevation of the scrotum, anodynes etc., and as the affection did not show any disposition to disappear altogether, I judged it best not to wait, but proceeded four days later to extract the calculus by a perineal section, having also made full preparation in all particulars for median lithotomy which not improbably might be found necessary.

October 22, 1 P. M.—Present, Drs. Rubey, Y. H. Bond, N. B. Carson, A. A. Rowland and L. M. Kennett. Etherization having been effected by Dr. Kennett, and the patient tied up as for lithotomy, the perineum having been shaved, a small staff grooved on its convexity, was passed as far as it would go between the stone and the finger in the rectum, and securely held in this position by Dr. Bond. An incision in the median line of the perineum beginning about a quarter of an inch from the anal margin, and extending two inches upward, was now made through the superficial structures. The finger being in the rectum, a sharp pointed bistoury with its edge directed upwards was entered at the inferior angle of the wound, and passed directly backwards, under the stone, until its point engaged in the groove of the staff. The deep structures were then divided upwards in correspondence with the superficial cut. The staff being withdrawn, the rounded end of the stone could be felt at a depth of about an inch and a half, but it could not be seized without considerable difficulty on account of its smoothness, the roundness of the presenting surface, and the fact that it was closely enveloped by the condensed sac in which it lay. The knife was used once or twice to divide the sac upwards, and when grasped by forceps the stone proved adherent to its bed, and could not be drawn out. It was therefore crushed with forceps *in situ*, and extracted piecemeal. Part of it was brought away with the scoop, and most of it detached from the sac-wall, not without much trouble, with the finger-nail. There was but moderate bleeding. Thompson's searcher was now passed into the bladder directly through the wound, and a stone was detected lying on the right side of the bladder. The impact of the instrument was perfectly audible to the bystanders. A little manipulation with the sound showed that the stone was not a small one, probably an inch or rather more in its shortest diameter. The forefinger was therefore passed into the bladder and its neck stretched as thoroughly as possible. Blizzard's knife was next passed on the groove of Little's staff, and the prostate and neck of the bladder very moderately incised in a horizontal direction on the left side. The curved forceps grasped the stone in a very favorable direction at once, and extraction presented no difficulties until the portion of the membranous urethra just bordering on the excavation in which the urethral stone had lain, was reached. The walls of the urethra in this place were so dense and inelastic that the progress of the stone

was temporarily arrested, until an incision had been made directly downwards, the finger being in the rectum, with a probe-pointed bistoury. The calculus was then withdrawn unbroken without further trouble. The entire fixed urethra and neck of the bladder was now dilated with Weiss' three-bladed screw dilator to three-quarters of an inch, and Gross' regurgitant nozzle passed into the bladder, which was freely washed out with warm water. No fragment of stone could now be detected by the finger, introduced through the wound. Otis' dilating urethrotome was next passed down to the perineal cut with its knife concealed, screwed up to 25, and the contracted portions and strictures of the perineal urethra as well as the meatus divided; the instrument was next screwed up to 31, F, and the knife withdrawn entirely at that gauge, the meatus being incised as the whole instrument was withdrawn. Blunt steel sound No. 31 was now passed without any hindrance into the bladder.

Probably half a pint of blood was lost during the whole operation. The extraction of each stone was necessarily somewhat tedious, owing to the anomalous condition of the parts. The calculi proved to be what is termed "alternating," composed of alternated layers of uric acid and phosphates. The bladder stone measured very nearly an inch in thickness by an inch and a quarter in length, and weighed, when moist, 160 grains. The urethral calculus weighed 185 grains.

The patient recovered very well from the anæsthesia. There was some oozing from the wound for the first twenty-four hours. The bowels were kept confined by opiates, the pulse ranging between 76 and 100 for several days after the operation. On the 26th, bulbous bougie No. 31 was passed down to the perineal cut. He was allowed some raw oysters on the 27th and 28th. At the latter date the bowels were still confined and urine was passed about equally by the wound and by the penis. Control of micturition was regained on the 26th. On this day a little bleeding occurred from the meatus but was promptly arrested.

October 29th, bowels not yet moved; bulbous bougie 29 passed as far as the perineal end; pulse and temperature normal; appetite good; no further bleeding.

October 30th, better; bulbous bougie 31 passed to perineum; bowels opened by an enema, quinine as heretofore, grs. v, thrice daily.

The further history of the case is as follows: the epididymitis

which existed in a sub-acute form at the time of operation gradually disappeared. The wound closed finally on the sixteenth day. He had an intercurrent derangement of the liver, and a rigor which did not recur. After the tenth day conical sound No. 31, followed by a blunt sound of same calibre, was passed, at first every third day, and during the third week every fourth day. The urine became perfectly clear and free from odor. The vesical irritability gradually declined, and about November 16 he was obliged to get up but twice at night to make water. He left the city for his residence in the country on November 28, twenty-eight days after the operation, looking nearly well and passing a full sized stream of urine, but there was some disposition towards overflow, in consequence of the diminished size of the bladder. This has gradually disappeared and he now passes his sound once a week. Towards the end of January he wrote me that he was quite well, had resumed his business and felt like a new man, in fact, "that there was no trouble in sight."

In this case all that was necessary was done at once by three distinct operations, viz : the perineal section and extraction of the urethral calculus, the extraction of the vesical calculus by median lithotomy, and free internal urethrotomy. Nevertheless, the recovery of the patient was very prompt under the circumstances and quite uncomplicated, save by the disposition towards rigors, which yielded to abstinence and appropriate remedies without difficulty.

The case is a remarkable one, in view of the very long sojourn of the urethral calculus in the membranous urethra and the activity and fecundity of the patient meanwhile. Impaction of a calculus in the deep urethra is common enough in childhood, but is far rarer in adults. Erichsen speaks of having removed an extra-urethra calculus, weighing an ounce, from a patient who had suffered for many years from tight stricture. He also alludes to a remarkable instance of this kind, where the pathological specimens are preserved in Sir R. Carswell's collection at University College. Holmes speaks of urethral calculus as a common cause of retention in boys, and states that "it is affirmed," that calculus has occasionally been *formed* in a pouch behind a stricture of the urethra. I am informed by Dr. Wesseler, of this city, that he removed a urethral calculus from an adult by perineal section a year or two since, but there was no stone in the bladder.

Reports on the Recent Progress of Medicine.

OBSTETRICS.

By WALTER COLES, M. D., Collaborator for the JOURNAL.

THE PROPER TIME TO TIE THE UMBILICAL CORD.—The time when it is best to ligature the cord after the birth of the child—whether late or early—has been the subject of much interesting controversy since the question was raised and discussed by Dr. Budin, in *Le Progres Medicafe*, 1875-6, with the result of investigating the question with a practical importance hitherto little appreciated. The data upon which these various arguments rest, seem for the most part reasonable and reliable. Budin contends that by tying the cord immediately after the child is born, *i. e.*, before it cries out lustily, and all pulsation has ceased, the infant is deprived of about three ounces of blood, which properly belongs to it.

The observations of Schüeking (*Berlin Klin Wochenschrift*, 1877) supported the same view. He considers it consistent with physiological law that nearly the whole quantity of blood contained in the foetal portion of the placenta is finally transferred to the infant. This author differs with Budin, however, in accounting for such transference through suction due to the respiratory movements of the child, but refers it to pressure exerted by uterine contractions on the undelivered placenta. Hence, he argues, that when the placenta is suddenly expelled with the child, or from any cause, such as *post-partum* hemorrhage, it has to be removed immediately. We should afterwards expel the foetal blood from its vessels by pressure with the hands, before applying the ligature.

Schüeking estimates the amount of this "reserve blood," as he calls it, at from 70 to 150 grammes, and the time requisite for the transfer, varies from a few to several minutes, being determined by the amount of pressure exerted by the uterus on the placenta. Contrary to the general practice in this country, he protests most strongly against treating asphyxia of the newly-born by allowing some hemorrhage to take place from the cord. This treat-

ment is founded on the supposition that the child's heart is already too full of blood, of which it must be relieved at any price—an idea which he thinks is quite erroneous. For at the first effort the child makes at inspiration the blood rushes into the thorax, leaving the extra thoracic vessels empty. These are filled by the "reserve blood," from the placenta; but if we tie the cord quickly and thus cut off this supply of "reserve blood," while at the same time we allow some blood to escape from the foetal end of the cord, we increase the anæmia, and, as a natural consequence, lessen the reflex sensibility of the medulla. As a direct consequence of this, the intervals between each effort at inspiration become longer, till finally the breathing stops altogether.

Prof. Zweifel,¹ of Erlangen, has instituted a number of experiments with a view of determining the exact amount of this so-called "reserve blood." He found that the average quantity of blood remaining behind in the placenta when the cord was tied immediately after the child was born was 192 grammes; but when the cord was not ligated till after the placenta had been pressed off by the hand, the average amount of blood contained in the placenta was only 92.29 grammes, thus leaving a large surplus of blood in the placenta, which is capable of being physiologically introduced into the child's circulation, and which, he contends, is essential to its well-being. For it is well known that all children for some days after birth lose weight (amounting on the average to 220 grammes), but the amount of such loss was found to be only 156 grammes when the ligature was not applied until after the expulsion of the placenta.

The observations and experiments of Meyer, of Copenhagen, agree with those of Zweifel in the main, *i. e.*, he concludes that the infant gets the benefit of more blood when the cord is tied late, but finds the actual amount is much less than the latter supposes—not sufficient, he thinks, to exert any material influence, other things being equal, on the future welfare of the child. These views are substantially concurred in by Dr. Max Weiner. Dr. Hofmier, of Berlin,² also started out with the view of disproving Zweifel's statement, but after a number of very carefully conducted experiments, arrived at facts which strongly corrob-

1. Centralblatt f. Gynækologie.

2. Centralblatt Gynækologie, 1878, p. 409.

rate them. Before commencing his investigations, Hofmier held that Zweifel's conclusions were necessarily erroneous, since the amount of blood claimed to be lost to the child, by premature ligation of the cord, (before expulsion of the placenta) was too large (100 grammes), while in the average infant the amount of blood, when the cord was tied as is customary, amounts to only 175 grammes. He performed thirty-two experiments, placing the child, the moment it was born, and before the cord was tied, on delicate scales to note its weight then, and also the change in weight after some minutes had elapsed. The result was an average increase in weight of 63.6 grammes, or about 2 ozs. This increase in weight he considers due to the extra amount of blood that has during the interval entered the foetal circulation from the placenta. After a number of weighings, Hofmier fully concurs with Zweifel that children whose cords are ligated early lose more weight after birth, and commence to pick up flesh later than those in which the cord is not ligated until after the expulsion of the afterbirth. A fact which he attributes to the fuller blood-reserve enjoyed by the latter class.

Dr. A. Ribemont, in the *Annales de Gynecologie*, for February, 1879, sums up his conclusions on this subject as follows:

1. By ligaturing the cord late the infantile circulation receives on an average an addition of 92 grammes of blood (Budin).

2. This blood which is contained in the placental vessels is most necessary for the full establishment of the infantile circulation.

3. The blood is drawn into the infantile circulation, chiefly by the suction power exerted by the expansion of the chest walls (Budin), the pressure exerted by the uterus on the placenta (Schücking, Porak) having no considerable effect.

4. In case of asphyxia where the child has a bluish hue, the cord ought not to be immediately tied, nor should any hemorrhage be permitted from its foetal extremity.

5. Ligaturing the cord late does not expose the child to the smallest immediate or ulterior danger.

6. The infant is thereby placed in the most advantageous circumstance possible for its development; it loses less weight, and regains what it has lost both sooner and quicker than if the ligation be made immediately.

7. The expulsion of the placenta is thereby rendered easier.

and there is less resistance offered to its escaping through the cervix. (Budin, Schücking.)

8. It is therefore most important that the cord should not be tied until all pulsation in it has entirely ceased.

On the contrary, Dr. Parak, ³ whilst admitting that the child receives more blood by delay in tying the cord, argues that this extra blood is a disadvantage rather than otherwise. For he holds that such children are much subject to infantile jaundice, and to the various effects of plethora, such as hemorrhage from the stomach, bowels and vagina and he adduces cases in support of this idea. — (Condensed from Dublin Journal of Med. Sci., June, 1879.)

Translations.

FROM THE FRENCH.

EXCERPTS FROM LATE FRENCH JOURNALS. [Translated for the JOURNAL.] By A. H. OHMANN-DUMESNIL, M.D., of St. Louis.

SPONTANEOUS CONTRACTION OF UNSTRIATED MUSCULAR FIBRES IN THE LUNGS AFTER DEATH—M. Hénocque, in a communication on this subject to the Biological Society, gave an account of experiments made by him and Brown-Séquard. The conclusions to which he arrives are as follows:

1st. The state of expansion, of dilatation or of collapse, the relative volume of the air vesicles of the different lobules or of different groups of lobules become modified after death.

2d. These modifications may be merely transitory, cease and then become apparent again at various points, having limited areas; they are produced slowly and leave the lung in a final state of expansion, which permits of a knowledge of the site, extent and degree of vesicular expansion, dilatation or collapse even after complete dessication of the lungs.

3d. These modifications are due to contractions of unstriated

3. *Revue Mens. de Méd. et de Chir.* May and June, 1878.

muscles contained in the parenchyma of the lung and in the bronchia and represent in the lungs the peristaltic contractions observed in other viscera.

4th. This interpretation is based upon the very conditions by which these modifications of vesicular expansion are produced. In fact, the pulmonary elasticity has effected the whole action of retraction. These changes are produced slowly, progressively with arrests now and then, and augment under the influence of irritants such as cold, carbonic acid, pinching, etc., and greatly resemble the peristaltic movements of adominal viscera.—*Gazette des Hôpitaux*, Jan. 8, 1880.

BRAINS OF CRIMINALS—M. Hanot presented to a society in Paris four brains, derived from the post-mortem examinations of as many criminals. Prof. Benedikt, of Vienna, recently called attention to the structure of the brain in certain criminals; he has observed the presence of four frontal convolutions in twelve assassins condemned to death. M. Hanot has found the same anomaly four times in eleven autopsies. The subjects are not criminals of the worst type but thieves of long standing and regular "jail-birds." In the brains presented the second frontal convolution seemed to be doubled, the supernumerary one being situated at this point. This is especially the more curious, as not a single case of the kind has been observed in patients dying at the hospitals not criminal.—*Progrès Médical*, Jan. 3, 1880.

SPECIAL SPOTS OBSERVED ON WORKERS IN GOLD—At the National Medical Association of Lyons M. Clément made a communication on this subject. These spots, he observes, may occur on any part of the body; they are confluent on the anterior aspect of the forearm. They are caused by pricks from gold-wire. They are brown in color, not projecting, irregularly elliptical, their smaller extremity directed downwards, being separated by healthy skin. These may be mistaken for powder burns or for the spots seen on grindstone cutters. In the former case the spots are darker and more grouped together, in the latter they are of an earthy appearance and the foreign body can be easily extracted with a needle.—*Lyons Médical*, Jan. 4, 1880.

MALIGNANT PUSTULE—Dr. Dumolard, who has devoted some attention to this subject, gives the following table of differentia-

tion between the non-infecting and the infecting form of malignant pustule, together with the natural course pursued by each:

NON-INFECTING.

1st week. This pustule begins in a point and enlarges with a vesicular areola, and around it the skin is tumefied and of a more or less dark red color.

On the fifth or sixth day there is an oedematous swelling around the pustule and on a part of the affected limb. On this oedema, whose proportions are always moderate, there are never any disseminated vesicles. The skin remains warm and of a heightened color; it is never distended like the infecting pustule.

Whilst this tumefaction is going on, there is generally some fever with cephalalgia and diminution of appetite, but the patient is never prostrated like in the infecting pustule.

2d week. The swelling of the part and the fever disappear at the end of two or three days; the appetite returns to disappear no more. The eschar less hard and dry than in the infecting pustule, enlarged and extends at the expense of the vesicular areola, which finally disappears.

During the whole of the first week the eschar was but a few millimetres in diameter; now it is two, three or even four mm. in extent.

3d and 4th week. The evolution of the disease is complete, repair will soon commence and these two weeks will be sufficient to eliminate the gangrenous parts.

The eschar, which is never deeper than the skin, has its greatest thickness towards the center, which is the last point to detach itself.

5th week. This last week is generally sufficient for the complete cicatrization of the wound, and the cicatrix, superficial and not considerable, never interferes with the motions.

INFECTING.

1st week. This pustule originates and develops with a vesicular areola, and the skin about it is white and discolored.

On the fifth day, and sometimes earlier, an indurated oedema comes on, distending the affected limb and rapidly reaching the trunk. This swelling is not limited, it is much more extensive than in non-infecting pustule. The skin is white, cold and smooth and always has several disseminated vesicles or bulbs.

At the same time that these local phenomena manifest themselves, general symptoms of infection declare themselves, supervenes at the end of the first week or during the first days of the second week.

However, reaction is sometimes observed even at the time that the general symptoms seem well advanced. This salutary process is the result of a spontaneous effort of nature, but it is more often due to the therapeutic measures employed in the shape of energetic cauterizations.

In these cases the damage done is considerable and the suffering long and terrible.

Secondary eschars are formed and bring about gangrene of the skin and cellular tissue to a very great extent. After a long time the eschars separate, cicatrization proceeds slowly and almost always the cicatrices prevent the free play of the muscles and articulations of the affected limb.

It may be said that the malignant infecting pustule terminates generally in rapid death, and when the patient resists the general infection he loses the use of the limbs affected by the pustule, on account of the depth to which the destructive process attains.

—*Lyon Medical* Jan. 11, 1880.

FROM THE SPANISH.

A. H. OHMANN-DUMESNIL, M. D, Translator. [For the JOURNAL.]

INFLUENCE OF MALARIA ON VISION.—In connection with this, Dr. Emilius Naranjo relates the following: D. Aniceto del Sol; born in Madrid, æt. 35, of a good constitution, a merchant in Matanzas, consulted me in the month of October last. He had, at that time, the following symptoms: a slight yellow tinge of the face, supra-orbital cephalalgia, aggravated by nocturnal exacerbations, internal hyperæmia of the conjunctiva, photophobia with

dryness in both eyes, saying that he had no lachrymation. He furthermore had pertinacious insomnia, nausea and some vomiting, epigastric sensitiveness and constipation. Temperature 39.5° C. (103.1° F.) and pulse, 120.

The patient related that he had, some three months previously, been fishing on the banks of the San Juan; that he had been suddenly seized with a violent chill lasting from midday till evening, accompanied with headache and general lassitude. He then had chills and fever for a considerable time, and acting on the advice of his friends took various remedies which seemingly benefitted him. This, however, was followed by a swelling of the inferior extremities, which disappeared after an abundant diuresis. The fever again appeared, and, with this second attack, came on the symptoms detailed above. Never had any disease previously except measles and rheumatism, having always been in good health. He furthermore stated that the pain in his eyes (photophobia) was so intense that he had to keep them closed, and endeavored to remedy this by the use of collyria of acetate of lead and rose water, and finding no relief in this, applied to the author.

Recognizing the cause of this, without any hesitation, as malaria, an emeto-cathartic was immediately prescribed, to be followed by sulphate of quinia, 1.25 grms., to be taken daily for several days. In less than 48 hours the supra-orbital pain became less intense, the photophobia also diminishing. A collyrium composed of borax, 0.4 grm., laurel cherry water, 2 grms., and distilled water, 60 grms., was ordered, together with frictions over the superciliary region with belladonna ointment and tonics with iron to combat the anæmia consecutive to malaria. The patient was furthermore given general hygienic directions in regard to habitation, etc. The recovery was rapid and complete. The infiltration in the lower extremities was a consequence, no doubt, of the state of the blood affected by malaria.—*Cronica Medico-Quirurgica de la Habana*, Jan., 1880.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

SATURDAY, FEBRUARY 14, 1880.

A Case of Rupture of the Uterus.

DR. T. F. PREWITT.—I will report a case. On the evening of the 12th a physician informed me that he had a bad case of labor, and he expected it would be necessary to perform craniotomy; he wished me to see it with him.

I came to the house and found the woman greatly exhausted, the pulse feeble, and on examination I found the labia as large as my fist, and all the genitals greatly swollen. I found an extraordinary condition of the abdomen, which I was unable, at first, to account for. The uterus seemed to be in two; the upper portion seemed to have tilted forward as though it was a tumor, directly proceeding from the spinal column, and then there was a depression. I could feel the fontanel, but could not determine the exact position. The head was pretty well down. The woman had been in charge of an old midwife for twenty-four hours nearly, and the physician who called me had seen her on the afternoon of that day. She had been in labor all the night before. He found a very bad condition of things, and thought he would need some assistance. The woman, as I said, was greatly exhausted, and this condition I was unable to account for. It looked as if we had two tumors, two uteri—certainly a very extraordinary condition of things. While the head was still down, not pressing on the perineum, I applied the forceps, delivered the head, and found very great difficulty in doing anything with the shoulders; in fact, the left shoulder, which was down, did not seem to dip into the pelvis at all. I succeeded in getting a blunt hook in the left axilla, and pulled with a good deal of force, and finally pulled the arm out. There was considerable retraction of the head, and I did not succeed seemingly in moving the body a particle. I had the woman moved still further toward the edge of the bed. I told the doctor there was a tumor or something that interfered with the passage of the body. After getting fillets over the head, I made traction.

in the direction of the perineum, and eventually succeeded in drawing the body out. Finding the placenta did not come, I passed my hand into the vagina, and observed what I thought at first was a tumor in the interior wall of the uterus. It seemed to me greatly thickened. This was the fifth labor of this patient. The others had gone on without great difficulty, and had been attended by midwives. It was a large child. I passed in my hand and removed the placenta, detached it, without being able to appreciate the condition at first. I examined carefully and satisfied myself there was rupture of the uterus in the posterior left side; the cervix at least was ruptured; whether it extended into the peritoneum I did not examine to satisfy myself; I thought I would be doing more mischief than good. The wall of the uterus after tearing was thrown to the front, and the thick wall of the uterus was what mislead me at the outset in supposing it was a tumor. There was no uterine wall behind; it was thrown forward. When I delivered the head and shoulders there was a complete revolution of the head; (at first the face presented to the left side;) on delivery it turned completely over. It was evidently the result of the laceration of the cervix which caused the child's body to turn in the exit. In this case the position was evidently the result of a want of antagonism between the anterior and posterior walls of the uterus. After the laceration, the upper portion of the womb tilted forward. There was to a certain extent flexion of the uterus, the result of want of antagonism. The woman seemed cheerful; her pulse was quick and feeble; the child of course was dead. The woman had a horrible looking prospect before her; I took it for granted she would die. I think in this case the laceration was the result of protracted labor with a large child.

The midwife said the others were not so large; I think it would have weighed twelve pounds. There was very little hemorrhage.

In reply to President Maughs, Dr. Prewitt said the uterus contracted quite firmly, but tilted forward.

DR. G. HURT asked if the projection was right above the symphysis pubis or in the region of the umbilicus.

DR. PREWITT — Rather more in the region of the umbilicus. I think the difficulty of drawing out the shoulders was due to the fact that the thickened wall of the uterus was between the shoul-

der and the symphysis; the lacerated uterus spread out; turned forward; the thickened œdematous walls of the cervix were between the shoulders of the child and the arch of the pubes.

DR. HURT—I hope the Doctor will watch this case, and give us the results at some future meeting. The representation of the diagram suggested to me the possibility of rupture, not of the uterus so much as the muscles in the abdominal wall, allowing the uterus to give way for want of support in the interior surface, and form a kind of hernia. Whether this would occur without a hernia of the intestine at the same time I do not know.

DR. ATWOOD—In connection with the report just read by Dr. Prewitt I will detail the history of two cases of a similar character. In the year 1866, I was called to see a woman who had been for many hours in severe labor under the care of a midwife, who informed me that two hours preceding my arrival and when the pain was most violent there was a sudden and complete cessation of labor, immediately followed by hemorrhage. Upon examination the os was found dilated and dilatable, and passing my hand into the uterine cavity I discovered the feet of the child therein, while its body protruded through a rent in the uterine wall traversing the cervix and lower segment. The patient presented all the phenomena characterizing extreme physical shock and I had already administered brandy and ergot. Grasping the uterus through the abdominal parietes and manipulating to secure uterine contraction I extracted the child, and fixing a compress with a tightly drawn bandage over the lower abdomen, instituted treatment in the further management of a most hopeless case. This consisted in the administration of stimulants, tonics and full diet. Soon there was established incontinence of urine and *fæces*, with a most offensive sanious discharge per vaginam. The latter was met by frequent injections of dilute Labarraque's liquid of chloride soda. The woman continued to improve in spite of most disagreeable surroundings and soon made a complete recovery.

In an interview with her husband I cautioned him against impregnating his wife, informing him that if again in labor she would die before he could bring a physician. The statement was based upon the known fact that cicatricial will rupture easily and sooner than normal tissue and under uterine action the cicatrix at the site of the injury would be torn open and a fatal result

ensue. The family moved from the vicinity and for two years I heard nothing of the further history of the case. At the end of **that** time I encountered the husband who informed me that his **wife** had again become pregnant and when taken in labor he had **started** for assistance, when, within twenty steps of his door he **was** called back and found his wife dead.

In another case I saw my patient upon the day following the commencement of labor. Its outset was vigorous and its cessation immediate. A steady straining effort simulating rectal tenesmus, substituted uterine pains. There was great physical shock. Stimulants with ergot were freely administered. Vaginal examination disclosed a patulous os with seemingly the membranes presenting. Upon pressing my finger upward I detected a forward movement of the supposed membranes which, upon further descent, proved to be a loop of intestine. The patient shortly died and the following day an autopsy was made, when, as was anticipated, I found the uterus filled to distention with intestines, its lateral wall ruptured from cervix to fundus and the fetus in its membranous envelope well up towards the diaphragm.

A Menstruating Virgin Uterus.

Dr. C. E. Briggs exhibited as a pathological specimen a menstruating virgin uterus, and said: This specimen comes from a case which presented many features of interest. I expect to give a report hereafter. At present I wish to show the specimen in as fresh a condition as possible. I do not wish to make a full report, but begin at my first knowledge of the case. On the 9th of this month I was called at about 2 o'clock in the morning to a case said to be one of great exigency. I found a young woman, some nineteen years old, sitting up in bed, struggling for breath, evidently in a great deal of distress and spitting blood, not profusely, but aerated serum, rather strongly tinged with blood. It was represented to me as an old case of phthisis pulmonalis. I looked at it and concluded after some time that the active hemorrhage had stopped. Notwithstanding that appeared to be the state of the case, the young woman suffered much dyspnoea and was exceedingly pallid, and though her pulse would not be called a bad pulse, yet there was some serious difficulty. So I gave a guarded prognosis. I inquired how the hemorrhage commenced. She had been dancing quite violently. They told me she fell over while dancing. That was in the afternoon, I

think. About nightfall she began to have her menstrual discharge and I understood it was the regular time she should have it. That, of course, excited no surprise, but afterwards she was observed to put her handkerchief to her mouth and remove blood. The case was a complicated one; she had had what was called vicarious menstruation. I do not know that ever before she was known to have the menstrual discharge and spitting of blood at the same time. The discharge of blood from the mouth began to be excessive, and finally, not to go into all the details of the case, I may say that at 10 o'clock on the morning of the 10th, about twenty-four hours afterwards, she quietly died. The trouble apparently commenced at the heart. The difficulty surrounding the diagnosis led me to make a post-mortem examination. Connected with the post-mortem was another advantage, a very great one. Here was a healthy young woman who died suddenly in menstruation. Therefore we had an unusual opportunity of securing what we supposed to be a healthy menstruating womb, and that is the point I will bring forward to-night. The womb presented other peculiarities, but there is no need to dwell on them. The specimen, having been taken promptly, was a very beautiful one. I took it on the 10th, quite shortly after death, and we found the phenomenon of menstruation very nicely presented indeed, with all the vivid coloring that marked the outlines of the membrane of the uterus, showing its swelling and demarcation. In looking at the ovary we found recent corpora lutei; also the Graafian vesicle recently ruptured. That, too, was an extremely beautiful thing. The clot was of a dark color, and all the tissues were nicely marked out. The Graafian follicle measured half an inch in its longest diameter. It is a pity we lose some of the beauty of the specimen by the procedure necessary for examination. I invited some gentlemen to be present. Dr. Engelmann, I understand, has had it drawn and colored, and that drawing will represent more truly the state of the case than this. In the specimen the yellow has gone almost entirely, and the fresh coloring has been changed. We can scarcely make out where the old corpora lutei were. Gentlemen will be able to see where the congested mucous membrane is, lining the body of the womb, whence comes the menstrual flow; also be able to see the ruptured Graafian follicle, and also the abnormal form of the os. If desirable, there are other points of slighter moment—the

shape of the womb, as presenting a marked interior flexi-

Dr. WESSELER asked the speaker to state to what he attributed the cause of death.

Dr. BRIGGS — I intend to report the case. I think it would not be well to go far into that part of the case; it is so complicated. What I think was the cause of death was the gene-
 oozing of blood into the vesicles of the lungs, and that the lungs were drowned out—suffocated—and there was a condition of the heart that favored such a state of things.

Dr. ENGELMANN — We are deeply indebted to Dr. Briggs for preserving and bringing this beautiful specimen here, not only beautiful but a most instructive and most valuable one. Its course is not as distinct now as when it was fresh; the colors are not as well marked, yet it will show distinctly to every one several mooted points. There are two points which this specimen proves distinctly and clearly, points which are under discussion. The first is that in menstruation the entire mucous membrane is not shed; the second that there is a temporal relation between ovulation and menstruation; it may not be on a certain day, but within the early days of the menstrual flow. With regard to the first point, I think that it is generally accepted on the continent of Europe, and this country, that during menstruation it is only the superficial layer of the mucous membrane which passes with the menstrual discharge, perhaps only the epithelial cell lining the cavity. Williams, of London, maintained in an article published in '75, in the *British Obstet. Journal*, that the entire mucous membrane is shed at every menstrual period. That theory has been found a great many adherents in England, and is entertained by the more prominent English authorities. We have a specimen here that shows distinctly that the menstrual flow goes on, and the hypertrophied mucous membrane remains in the womb, and is not shed. We have here the fresh ruptured follicle. It is hardly to be called a corpus luteum; there has not been sufficient time for the formation of the yellow ring. We have a follicle filled with coagulated blood, for the center of that mass is blood, as shown by microscopic examination. There is another point which the specimen beautifully shows, and that is the thickening of the mucous membrane of the body of the womb. The cervical lining is in its normal condition, unaffected by menstruation, but the mucous membrane of the uterine cavity pro-

is very much hypertrophied; it forms that soft bed in which, if conception takes place, the ovum is engrafted and finds shelter for its growth. There is an increase of thickness in the mucous membrane during menstrual congestion. You see that the glands are comparatively straight. These glands become much more tortuous and enlarged in the menstruating uterus, and the thickening begins before the menstrual flow; during the last days of the menstrual flow it gradually subsides; perhaps the last layer of hypertrophied tissue passes off with the menstrual flow, and in the first days after the cessation of the menstrual flow, shrinking takes place, again to bud out with the next menstruation, and prepare the bed for the reception of the impregnated ovum.

DR. A. C. BERNAYS said that he did not think Dr. Engelmann was justified in saying that the specimen proves that menstruation and ovulation fall together. He thought the coagulation in the Graafian follicle was eight or ten days old, and was inclined to think that the thickening of the mucous membrane of the womb was caused by the ovum falling in the womb; did not think that the mucous membrane was thick when the egg got there. The microscope, he was pretty sure, would show that there was some organization going on at the periphery of that clot. In regard to the casting off of the whole mucous membrane, he agreed with Dr. Engelmann in that respect.

There was a practical point in regard to the time when the coitus would be most likely to produce pregnancy. Until the year 1873 it was held that the most likely time for pregnancy to take place was just after menstruation. It was supposed that during menstruation the egg was thrown into the cavity of the womb, and was there ready to receive the spermatozoa. It had been found to be entirely different. Dr. Engelmann had proved, or came near proving, that ovulation coincides with menstruation, and if that was the case, the most likely time would be when coition takes place during menstruation. Another factor came in here, that the spermatozoa will live in the womb for at least eight days, or as long as eight days. Though there may be no coition for eight days, there may be spermatozoa in the womb, ready to fertilize the egg when it comes. So that according to these facts it made no difference; it was entirely immaterial at what time coition took place, whether during men-

struation, or before or after; fertilization was equally probable at all times.

PRESIDENT MAUGHS spoke at some length on the theory of the menstrual act, and explained some of its conditions. In regard to the time of conception, he said most women conceive five or six days after menstruation, and yet some women are so liable to conception they would conceive at any period. He knew a woman who had children very readily. She did not want to have any more. She was advised by her family physician only to have connection with her husband in the middle of the menstrual period. She observed the direction carefully, only to conceive as promptly as before. We have no difficulty in accounting for that. The ovum remained and was liable to fecundation for eight or ten days, or even longer, after.

SATURDAY, FEBRUARY 21ST.

DR. WM. PORTER — The case I have to report will probably furnish a pathological specimen: The case is one that I am sorry to say found its way into one of our daily papers of recent issue, and I have been requested by some members of the Society to make a brief statement about it, especially as it is supposed that the operation was a failure, which is not true. The patient, a young woman of some twenty-seven or twenty-eight years, was sent to me for examination a week or ten days since, by Dr. Louis Bauer.

I found her suffering from great dyspnoea. A large tumor occupied the greater part of the space below the vocal cords. The history was, that for some three if not more months, the patient had some trouble in the throat, a little difficulty of breathing, some difficulty in speaking, and a little pain. Three weeks before, her breathing became very much embarrassed and her voice was almost entirely gone. The tumor as it appeared under the laryngoscopic light was large, very firm when touched by the probe, and so smooth in outline that I doubted the character of the tumor. I thought it might have been one of the ordinary polypi, but pressure of the probe showed it was firm, and the surrounding tissues were much involved. The involvement

of the laryngeal tissues resulted in a loss of motion, and the left vocal cord was held almost in the median line. At the examination, I expressed my fear that this was malignant. Surgical interference was advised.

Tracheotomy was performed at the College of Physicians and Surgeons to-day, by Dr. Bauer. When the larynx was laid open, the cricoid cartilage was cut. As expected, the whole laryngeal tissues of the left side were involved.

The tumor was hard, deep-seated and left no doubt as to its character. The tube was left *in situ*, and it may be, though I do not know what Dr. Bauer's intention is, that further operative interference may be pursued. As yet there is no ulceration; as to the ultimate result of the case provided the tumor is not removed, there can be no doubt.

Operations for Harelip.

DR. ED. BORCK.—Mr. President, I have here some diagrams. The first is intended to represent a double harelip, with cleft palate. I do not introduce this case because harelip, or the operation therefor, is something extraordinary, but because every operation, no matter how trifling, has some points of interest, and will teach us something. I saw this child when it was but a few weeks old; it looked ghastly—ugly. The nostril was perfect; the right intended lip had hardly any lip at all, and of course no external formation of nostril. There was a little pear-shaped pedicle attached to the gums, in the middle line, containing the rudiments of two front incisor teeth.

I was at first tempted to cut it off, but I only gave it a twist, and in a few days nature separated it. I had strong adhesive strips applied from right to left, and from left to right, to draw the parts together. I also instructed the mother to apply pressure. In this way the parts were brought more in apposition. When the child was about three months old I operated, first upon the right side. The dotted lines show the incision. I separated, thoroughly and completely, the cheek from the maxilla, keeping the knife close to the bone. I then divided the whole nasal wing; this leaving me a triangular flap. I then made this cut; next peeled the edge from the middle piece, not dividing the frenum superioris, and united both flaps by hair-pin sutures. I had some hemorrhage. To check this the needle is the best instrument. Sloughing followed. The wound sepa-

rated, except a small bridge. I introduced a large needle; it healed nicely. A month later I operated on the other side, which was not so difficult. I used harelip sutures. It sloughed. Again a long needle was put in it, and it healed by suppuration. The result, I think, is beautiful. You can hardly see any cicatrices. The object in these operations is to obtain union by first intention, and to get it we should wait until the bleeding has completely stopped, and the wound is clear of all clots before the sutures are put in; but if hemorrhage is severe, the needles and ligature will control it best.

I had another case of double harelip, and without cleft palate. Both nostrils were well formed. I operated in this manner: Instead of cutting or peeling the edges off completely, and then uniting, I introduced a small knife about a line from the lower edge of the lip, carrying my knife around to within a line of the other side of the fissure, then pulling it down and uniting by needle sutures. This left a nipple on one side, but none on the other. I cut the nipple off, so as to equalize the two sides; union by first intention followed. This method of paring all the tissue and pulling it down, instead of cutting the edges completely, is not new. Néleton has done and recommended that, but he cuts the mucous membrane through, separating it, while I do not divide it at all. The advantage gained is this: If union by first intention does not take place, a natural bridge will be left, and it will hold both ends together. I have used the needle sutures—generally fine sewing needles—and the ligature. I also tried glass pearls, as suggested by Dr. Prince, of Jacksonville, Ill. Wax pearls answer better and can be broken more easily, but corriander seed answers the purpose very well. I use two or three on each side. They hold firmly, and if swelling takes place you can easily break one or two to make room, without much disturbance to the parts.

DR. BERNAYS described and illustrated at some length on the blackboard his method of operating for harelip, by which he claimed more perfect results than by the old method, since, he claimed, that it left less deformity and a more natural facial expression.

Fractures of the Forearm.

DR. T. F. PREWITT presented a boy who had suffered a fracture of both bones of the forearm nine weeks before. The Doctor did not see the case until seven weeks after the accident,

when he found that the bones had united at a very ugly angle. On refracturing the bones for the purpose of correcting the deformity, he found that the ulna was longer than the radius; the latter forming a string to the bow, as it were. This difficulty had been gradually overcome by means of a rubber bandage, which through constant pressure, assisted by a simple splint, had brought about parallelism between the bones and a very satisfactory result.

SATURDAY, FEBRUARY 28TH.

Compound Dislocation of the Wrist.

DR. ED. BOECK — I will introduce to you to-night a very interesting and rare case, which will demonstrate what conservative surgery may accomplish with the assistance of the beautiful workings of nature.

This boy, now present, is Fred. Lenrin, aged 13 years. On the 11th day of October last, he went about two miles out of town to hunt and pick up persimmons. He was so unfortunate as to fall from a tree, injuring his left wrist joint badly. When I saw him I found a complicated dislocation of the carpal bones, scaphoid and semilunar, upon the posterior side of the radius. The head of the bone was subcutaneous anteriorly, the ulna protruding through the skin also anteriorly, and exposed about two inches in front of the carpal bones and skin, cleanly stripped of all its attachments, but there was no fracture. We must remember that this part of the ulna is very subcutaneous and that it does not enter into the articulation of the wrist-joint proper; that it is separated by the triangular fibro-cartilage.

The lower epiphysis of the ulna, as well as of the radius, does not become joined until about the twentieth year; here, however, the bones seem to be well and prematurely developed. There was some hemorrhage. In this condition the lad walked all the way home. Chloroform being then administered by my assistant, Dr. Charles H. Foster, I kept the arm flexed at right angle, grasping the hand with my right hand, and making extension, pushing back, or rather keeping in their places the long bones with my left hand.

It was not very easy to accomplish the reduction. However, by introducing a strong dull probe, I succeeded in pushing back the skin over the protruding part of the ulna. Then bending

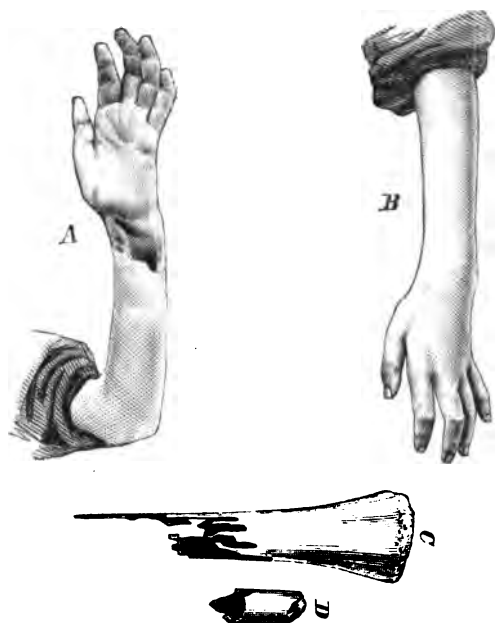


FIG. 9.

A, Anterior View (showing wounds).

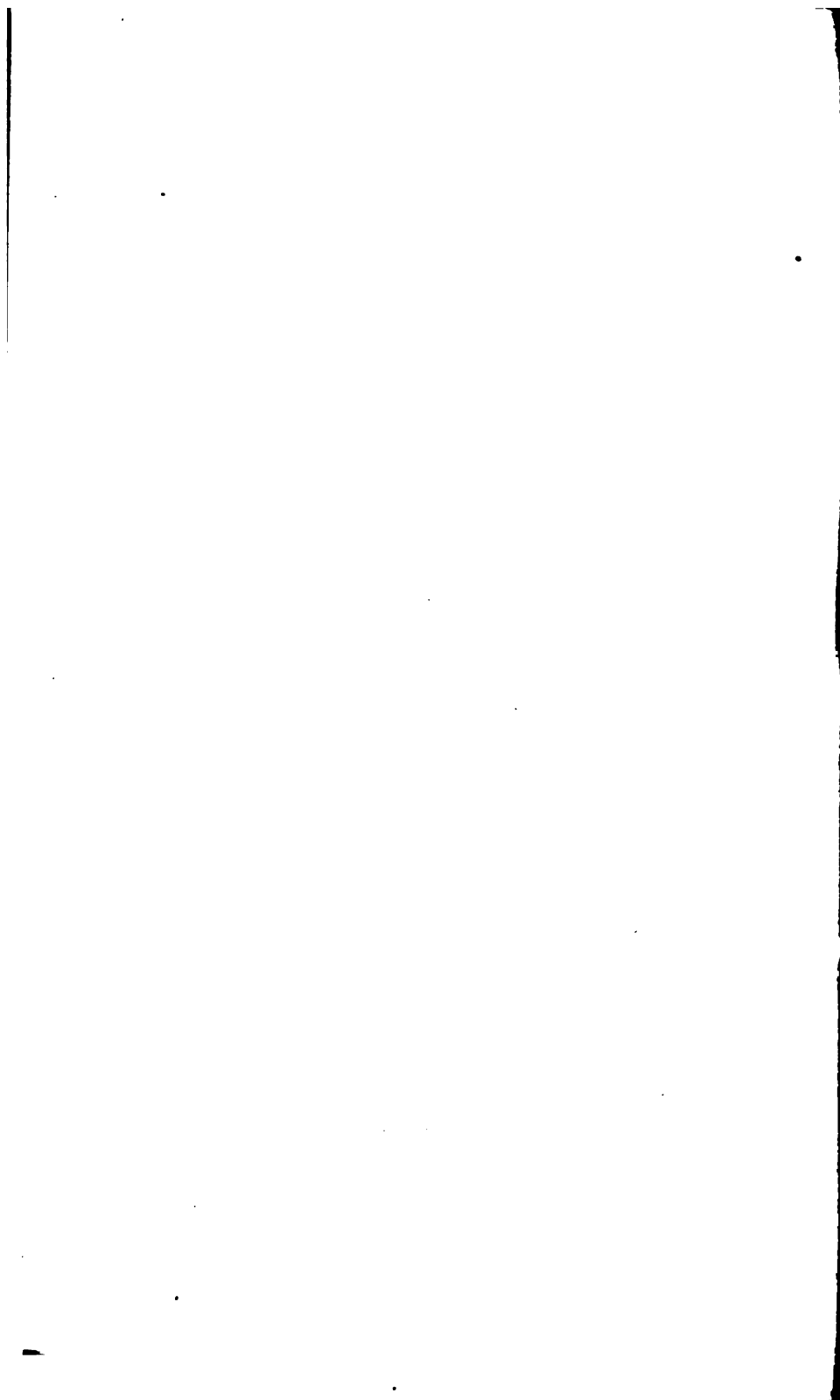
B. Posterior View

C, Head of Radius (half size).

D. Piece of Ulna (half size).

[Engraving by W. Mackwitz, after photograph by B. F. Reynolds.]

[See page 272.]



the probe, I felt for the supinator longus, which is attached to the styloid process of the radius. It was separated from it. The head of that bone protruded between its tendon and the tendon of the flexor carpi radialis, and the flexor below.

I continued my extension, and by a little manipulation, pushing the tendons one side with the probe, I accomplished the reduction. The boy had no feeling in the thumb, index and middle fingers. They were cold and he could not move them, an evidence that the median nerve was injured. He suffered but little pain. The wound was washed and dressed with carbolyzed water, a compress and bandage applied and the arm put upon a straight splint. Everything went well for the first three or four days.

Here I may remark that during the whole treatment the boy suffered but little pain, and this is a point worth noticing, one which I have observed in many cases, that whenever there is but little or no pain after a severe injury like a compound comminuted fracture or dislocation, there is generally trouble ahead. So in this case. The boy, being of a puny constitution, never was a hearty eater, but of a tranquil disposition. He became feverish, the wound assumed an ugly type, and an attack of erysipelas set in. Some tendons sloughed, and after the erysipelas had disappeared, the head of the radius became necrosed. You can always tell necrosed bone by its peculiar smell.

For sometime the arm did not make any progress either way. Nature gradually pushed the bone through the wound, and now the question arose, what to do, resect, or to leave nature to have its own way. The latter was adopted—to wait till the bone was ready to come out, and then we would remove it.

About the sixth week after the injury, I removed the head of the radius with a pair of strong forceps. This was comparatively easy under chloroform. The arm was then placed in a pasteboard splint, with a fenestra cut for the wound, and kept at perfect rest. The wound healed rapidly.

Another attack of erysipelas set in, abscess formed near the elbow, and it was opened in due time. Then a wound on the ulnar side appeared, and again the smell of the necrosed bone was perceived. While nature's repairing process continued on the radial side, nicely filling up the vacant space made, destruction proceeded on the ulnar side. About four months after the injury, I removed about an inch of the ulna. Nature had forced

it out and while so doing had repaired the injury, having united the bone completely, resulting in a perfectly solid bone. I here show to you the specimen. The treatment was a liberal diet, milk, eggs, soup, etc.; quinine to control the fever and as a tonic iodide potassium, 25 centigram doses every three hours during the attack of erysipelas. I consider the iodide potassium a most valuable remedy to control traumatic erysipelas; externally warm water dressing.

I do not need to speak of the process of repair. You all understand how nature accomplishes that. The boy looks better than ever he did; he has gained flesh, and will have a good and useful arm. You observe he can move his wrist; extension and flexion is almost perfect; supination and pronation to some extent.

[The Doctor then undressed the arm for the inspection of members, and a recess was taken. He expressed a hope that he might present the youth to the society one year hence, so that further improvement might be noted.]

DR. ATWOOD—In connection with the case reported by Dr. Borck, I have a remarkable occurrence to report. Over a week ago a boy about twelve years of age, living fifteen or sixteen miles from the city, received a gun-shot wound, losing two and one-half inches of the radius and ulna. The cartilage was exposed; the cutaneous structure above and below the wound was intact; the wound was on the lateral aspect. Thinking to save the hand I removed all the spiculæ of bone, and after washing out the wound, I dressed it on a straight splint, and applied warmth to establish circulation. Two or three days after, it became evident there was no circulation in the hand. I proceeded to amputate. At the time of amputation there was no arterial hemorrhage. After amputation there was venous oozing. I thought the arteries would show themselves in the flaps, but they did not, neither was there any hemorrhage. After waiting half an hour, and being unable to find the several vessels, I simply closed the wound in the usual manner, and up to this time, some eight or ten days having elapsed, there has been no hemorrhage. The wound is healed by first intention.

DR. POLLAK—Which part did you amputate?

DR. ATWOOD—The forearm; the middle third.

DR. F. J. LUTZ—I do not think it should be laid down as a

rule that we should trust to nature to close large arteries, or that they should be left to look after themselves; yet the following incident came under my notice. About three years ago I had occasion to amputate a hand in consequence of a crushing which the member received by a heavy piston being driven down into a cylinder in a stove-pipe manufactory. The wrist joint was laid open. I attempted for thirty-six hours to save the hand by artificial warmth. It became necessary to amputate. I performed amputation with the assistance of Drs. Gregory and Wesseler. Pressure on the brachial artery was omitted, and there was no blood. Considerable search did not detect the artery, nor was I able to find it. Subsequently, by making pressure on the forearm, Dr. Gregory succeeded in squeezing out a blood clot which had closed up the ulna artery. I suppose if I had not found the severed end of the artery, it would have closed without bad results, for the plug was very firm. I should not, however, trust to nature alone, for secondary hemorrhage might come on, and our patient fare badly.

DR. A. C. BERNAYS—There is a method of managing amputated stumps which I can recommend highly. It involves the question of using ligatures on wounded arteries. On the middle third of the leg and the forearm, I have repeatedly, after removing the limb, sewed up the wound in order to close the wound and bandaged it with Esmarch's bandage. I performed amputation, ligated no artery and put on the bandage. Sometimes you will find oozing of blood through the interstices of your bandage, but I have rarely seen that, if the bandage is tightly applied. It is my practice not to remove the dressing for six or eight days, at the end of which time the flaps will gradually be found united.

In operations below the middle third of the forearm and leg I think this procedure is safe. The arteries after being cut retract, and the pressure of the bandage causes coagulation. If there is hemorrhage of the branches, it gets between the flaps and coagulates, unless fever sets in. I have found it an excellent way to treat stumps. It seems rather risky, but I have not seen any evil results from it. One case I call to mind. A man shot himself through the forearm. After amputation, after removing the rubber bandage the stump was closed by sutures, enveloped in absorbent cotton, and a tight bandage applied. At

the tenth day union had taken place, and the sutures, I found, could be removed. Of course there were no ligatures to be taken off. The case could be dismissed from the hospital at once.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

ADHERENT PLACENTA. By H. V. FERRELL, M. D., of Carterville, Illinois.

Many years ago Dr. Dewees said that adherent placentas were generally heard of in the practice of young and inexperienced physicians. Perhaps there is not a member of this society of much experience who has not been called time and again by some young practitioner to deliver what he gravely informs him is an adherent placenta, but which is in fact simply retained and that too in the majority of cases by the vagina.

A few years ago I was called in great haste by a young graduate in medicine to deliver what he thought was an adherent placenta. On making a vaginal examination my finger came in contact, just within the vulva, with a soft movable substance which I took to be a clot, but on turning it out found it to be a wad of cotton about the size of a hen's egg. In my surprise I asked the doctor how it came there. He told me that it was a tampon saturated with a solution of persulphate of iron and placed there to restrain the hemorrhage. The placenta was found in the vagina, just above his tampon.

Less than a year ago I was sent for by a "ten-yearling" to see a woman who had been confined at two o'clock in the afternoon. The doctor gave her some composition tea and went home; before going, however, in answer to the inquiries of the old women about the afterbirth, he told them that he would come down in the morning and attend to that, but that if he did not, it would make no difference, for it would rot and come away as it often did in cows. The old dames were not comforted much by this assurance and in the night had the doctor called back. He administered more composition tea, told them that it was "growed," advised them to send for me and went to bed. I was aroused by the husband late in the night. He told me what

was wanted. I asked if his wife was comfortable, he said she was; if she was flooding, he said she was not. The night was bad, the roads were bad and so was the pay, and I didn't want to go, so, with that professional charity which should characterize us all, I sent him to a very intelligent young physician, recently located in my neighborhood, with word that if he found anything wrong to send for me and I would assist him. On arriving, Dr. H. found the patient and the "ten yearling" both comfortable, the placenta lying loose in the vagina, and would have dropped out if she had got on the vessel. On the way back Dr. H. remarked: "Why, Doctor, that placenta was detached." "Of course it was," says the ten-yearling, "if it hadn't been detached I could have got it away."

Such cases as these have brought the subject of adherent placenta into disrepute and cause the profession to look with distrust upon cases of this kind and a physician is perhaps to be regarded as unfortunate who has a case to report. The authorities very generally, universally, so far as I know, admit that there is such a thing as "adherent placenta" requiring the intervention of art for its delivery or even defying art and maintaining its adhesion. From conversation with physicians one would be led to suppose that this is an extremely rare occurrence, not one of the many that I have ever talked with upon the subject, old veterans in the profession, do I remember ever to have heard admit that he had ever found a placenta that he could not deliver. They peel it off, scratch it off, tear it off, get it off in some way. There is a feeling in our profession that it is ignominious to let a woman die undelivered, and I believe the same feeling exists against an undelivered placenta. Far be it from me to question the veracity of a physician, yet I must confess to a very strong suspicion that the fear of this ignominy may have prevented cases of adherent placenta from ever seeing the light. A few years ago I delivered a placenta from a woman eleven days after her confinement. She was attended by two physicians, who, so far as I know, have never reported that they had found a placenta which they could not deliver.

It is not my purpose in this short paper to enter into the causation, morbid anatomy, literature or statistics of the subject. I will merely say that in 541 labors I have met with two undoubted cases of adherent placenta. One partial, the other complete. In March, 1870, I was called to see a woman who had

been recently delivered of her tenth child. I reached her about 4 o'clock in the morning and she had been confined under the care of a midwife, about sundown the evening before. Soon after the birth of the child she began to flood and continued to do so until my arrival, when I found her pulseless, fainting, vision almost gone; in fact, in articulo mortis. Hastening to make an examination I found the uterus inert and about one-half the placenta detached; the other seemingly firmly adherent. Whether I could have torn off the detached portion or could have detached the adherent portion I do not know. My first endeavor was to produce contractions of the uterus by means of stimulants, ergot, handfulls of snow and vinegar carried into the uterus, etc., but to no purpose. My patient was dead in a few minutes. No remedy should be judged by its effects in a patient so far gone as this. One word as to the placenta. It seems to me that it would only have been hastening the fatal termination to deliver or to attempt to deliver it before the contractility of the uterus was restored. As before stated, this was her tenth confinement. Beginning with a girl, every other child was a boy, and with each of them there had been trouble in delivering the placenta. With the one before this, the afterbirth, as they said, had to be taken from her by a doctor.

In August last I was called in consultation to a case requiring instrumental delivery. After the child was delivered, we found a completely adherent placenta. It was attached to the anterior wall of the uterus, and extended almost to the os internum. With the hand in the uterine cavity, carrying it over the entire inner surface, to be sure that there was no hourglass contraction, the whole margin of the placenta could be explored. Ergot was freely given, the uterus contracted so firmly as to have led to the impression, from external examination alone, that the placenta had been expelled. Crede's method by expression was faithfully and perseveringly tried; pulling upon the cord, the uterine tumor could be brought low into the pelvis, letting the cord suddenly loose the tumor would instantly rebound to its former position. No hemorrhage. What was to be done? After long continued, fruitless efforts by the ordinary means, it was finally determined to undertake to peel it off by insinuating the fingers between the placenta and the uterus. This was faithfully tried, but no progress whatever was made. I could not even get it started. What next? I either had to abandon all further at-

tempta, or leave it to nature. At this point I confess that my fear of the ignominy before alluded to, had some weight with me. I now decided to undertake its removal by the tearing up, scratching off process. It makes me shudder to think of it—it ought never to be mentioned but to be condemned. Before proceeding, however, we prepared for hemorrhage. Taking the largest sized Barnes' dilator from my obstetric case, I filled it with a solution of sub-sulphate of iron, and had it ready for use. Then introducing my whole hand into the uterus, I endeavored to tear the placenta up, and bring it away piecemeal. I succeeded in getting away as much perhaps as a single handful, when the profuse hemorrhage, which had already made its impress upon the patient, warned me to desist. Taking now the end of the tube of the dilator in my hand, and carrying it directly into the torn up substance of the placenta, my assistant, by squeezing the bulb forced the Monsel solution upon the bleeding surface, arresting it in a few moments.

It was now found that it was impossible to deliver that placenta without immediate death of the patient, and we were compelled to leave it. Before doing so, I thought I would break the cord near its attachment to the placenta, but I found upon trial that I could not do that, and had to, or did, cut it with the scissors. The only object in doing so was merely the looks of the thing. By means of warmth, stimulants, etc., we soon succeeded in bringing about such a degree of reaction as to enable us to feel the pulse at the wrist, and in a few hours we had the satisfaction of leaving our patient in reasonable comfort. This was Sunday morning, just after daybreak. Friday following, the placenta was found detached, and was delivered without any trouble. The woman got along without a bad symptom until she was able to sit up and walk about, when three weeks afterwards she was exposed to a rainstorm, took pneumonia, and died in a few days. Hereafter when I meet with a placenta that I cannot deliver by what we may term the ordinary means, I shall leave it to nature, which, as in this case, does in a few days what, with all our skill, we cannot accomplish. It seems to me that by leaving it intact the patient is less exposed to hemorrhage or to septicæmia, than if we leave it in a torn up, shreddy condition. I am sure that if I had not taken the precaution to prepare the Monsel solution beforehand, the patient would have died before it could have been prepared.

Translations.

FROM THE ITALIAN.

STORIA COMPENDIATA DELLA CHIRURGIA ITALIANA. DAL SUO PRINCIPIO FINO AL SECOLO XIX. Del Professore CARLO BURCI.* [For the JOURNAL.] JOSEPH WORKMAN, M. D., Toronto, Canada, Translator.

COMPENDIATED HISTORY OF ITALIAN SURGERY—CONTINUED.

Down to the beginning of the 12th century, surgery had not been disjoined from medicine, or regarded as a distinct and essentially separate art; for though it was practically so, because the physician could not embrace the whole range of the healing art, and was therefore obliged to divide the work, this was not done under any legal provision. Whoever treated the sick by virtue of his legitimate ministry, might do so in any form of disease. But the history of medicine has clearly shown the necessity, and even the utility of specialists for the cure of certain affections, and these practitioners did not always belong to the medical caste. They were often empirics, that is uneducated in their art; masters, not doctors; ignorant of general diseases, and frequently mere traders or charlatans. Italy certainly had these, by some of whom she was honored; as the Brancas in autoplasty, and the Norcini in Lithotomy. Every people have had, now have, and always will have, in even the brightest times, their popular practitioners, who, vaunting their fame-borne secrets, have treated, and will, regardless of prohibiting laws, continue to treat both poor and rich. It will be impossible ever absolutely to restrain either human credulity or human knavery; and what law could ever compel a sick man to be treated only by an authorized physician? The law may punish a quack, but for every one punished a hundred will go unpunished, and the rogues will always gain in the confidence of the credulous. What then? Will the majesty of science be thereby stained? Will the honorable physician, who is expert in his art, and noble in its exercise, ever lose his

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rank, or that dignity which society concedes to him? Has not medicine its specialties, and does not surgery show them to us, represented by men worthy of all praise?

Medico-chirurgical practice, at the beginning of the 12th century, though modest and not yet raised to fame by celebrated men, was generally in the hands of the priests, monks, and conventual laics. There were neither diplomas, nor authorities to grant them; the studies pursued, and the caste to which the person belonged, gave authority to practice, but to the high ecclesiastic dignitaries, such a vocation, although pious and charitable, soon appeared as too likely to lead astray the clergy, and withdraw them from their proper duties, and to loose the regulars from obedience to their superiors; and it might besides be a temptation to their avarice; it therefore appeared that the practice, but especially that of surgery, was an immodest profession, and that as the church abhorred befoulment of the hands with blood, this was a manifest injury to chastity and sacerdotal purity. It was for these considerations that in the Lateran Council of 1139, it was, with threats of grave penalties, prohibited to the clergy of every order, to teach or practice the healing art. The Councils of Montpellier in 1162, of Tours in 1163, and again of Montpellier in 1195, confirmed this prohibition. In that of Tours, afterwards, the ecclesiastics were absolutely forbidden to practice surgery, as that was regarded as soiling worst the white and immaculate veil of the temple.

In the 12th century, therefore, surgery was, by the Councils and Popes, banished from the sanctuary, and medicine was, at the same time, forbidden to them, as if the art of healing were a thing dishonorable to the altar. But it is not a little marvelous that the Papal Bull, by which the Pontifex created the medical faculty of Montpellier, in the 13th century, ordered that the teachers and scholars should *be clerics, and wear the tonsure*, and consequently belong to, and in a certain measure depend on the ecclesiastical authority, and obey the canonical laws. In fact the masters wore the priestly garb, obeyed the clergy, and must remain unmarried. It certainly was no small injury to surgery to be then abandoned by those who had practiced it with devotion, and under some protection. It now had to take refuge among the ruleless and popular operators—the barbers and men of mean repute—who, by their ignorance, coöperated in aggravating that decadence so much deplored by Albucasis. It had now becom

an art despised by medical philosophers, who disdained the healing of disease by operations of the hand. The school of Salerno, alone, in the 12th and 13th centuries, maintained the unity of teaching, and to it we owe that surgery was preserved in some degree of decency. The Arabian and the Jewish surgeons, who had been instructed in the Eastern schools, and who now traveled over Europe operating and reaping abundantly from the doctrines learned by them there, had now a prosperous time. Had all been as able as Albucasis, surgery would have stood indebted to the Arabians for its revival, and for those principles which conducted it afterwards to its new grandeur.

But God had prepared for the world, and more especially for Italy, which had suffered so much from the barbarians, and from head to foot had been devastated and ruined, new splendors and new triumphs. In the two centuries preceding the 13th, the *Comunes* sprang to liberty; the small states formed themselves into a Republic; the language was created, and it was polished and softened in songs of love; the Crusades made Italy the center of commerce; the Greek and Latin philosophy, sustained by Boëtius, St. Augustine and St. Thomas, recommenced to see the light, and contended against the Arabian abstrusities and pernicious philosophies; universities were created by the Princes, and by Papal Bulls, and the Popes took care of them; they appeared in Bologna, Naples, Pisa, Padua and Pavia, etc.; the school of Salerno, *antiqua mater et domus studii*, flourished, and taught the healing art, in the footprints of Hippocrates and Galen; reason and justice resumed their empire over force and proud power. In this Italian resurgence, which afterwards became diffused through all Europe, and carried light and liberty over the earth, the surgeons also gathered their palms of glory and became masters.

After the clerical period to which I have alluded, and after the *veto* imposed by the councils on the ecclesiastics practicing medicine and especially surgery, many clerics still continued to practice, and from having been abbots of monasteries became chief physicians to Kings, (e. g. Fra Domenico of Pescara, and Fabrizio,) and Constantino Africano Monaco was made the Grand Master of Salerno; surgery became *quasi* laical, and as such it arose in Italy with the new birth of sciences, arts and letters. Just as in the days of Hippocrates, there were the *Periodonti* (or itinerants,) so there was no scarcity of specialists in every branch of

surgery in Italy. The Norcini and the Preciani were noted as lithotomists and oculists, who, in the 13th Century, had *from time immemorial*, earned fame from their operations for stone, the cure of hernias, and diseases of the eyes. Afterwards there arose masters of the arts, who rendered Italy and France celebrated. "*It is (says Dezeimeris,) to the Italians that the revival of Surgery in France must be ascribed. Italy had to lead the way to the other countries of Europe, in the career of scientific progress.*"

Two schools in the 13th Century, rivaled each other in the teaching of surgery in Italy, that of Salerno, the *ancient mother*, which had at its head Constantino Monaco, called Africano, and the other, that of Bologna, instituted by Ugo da Lucca, where human anatomy was taught by Mondino and medicine by that talented Florentine Taddeo Alderotti.

Ugo da Lucca was a physician at Ferrara, in the pay of that Dukedom; he went in the Crusades to the Holy Land; he came back, and taught surgery at Bologna, where he died old, in 1258. He had a school and pupils; he wrote little, but taught wisely. Teodorico, his son and scholar, bishop of Bitonto and Cervia, and confessor to Pope Innocent IV, practiced surgery successfully in Bologna, and wrote a book on the art, 1266, in which he followed the doctrines of his father and other famous masters. There followed Ugo, in the same school, Ruggeio da Parma, a man of rare genius, who, having completed his studies in Salerno, returned to Bologna to teach about the middle of the 13th century. He wrote two treatises on practice, one very little, and another larger (in folio, Bergamo 1498); he also wrote, *De modis mittendi sanguinem de cujusque utilitate*. His books became the law and the texts in Italy for a long time. They were annotated by his disciple Rolando, in his work, *Libellus de chirurgia* and in the work of Rolando, by four masters of Salerno.

Among the able surgeons who appeared in Italy in the 13th century, renown was acquired by Bruno da Longobucco, who practiced the art before Theodoric, and wrote at Padua his *Chirurgia Magna* (1252). He knew and quoted the Greek and Italian instructions. For the cure of fistula in ano he wisely recommended the method of incision. Those first surgeons of the renaissance, and many others who succeeded them were Arabists who as they did not know the doctrines of Hippocrates or Galen, were moulded in practice by the works and precepts of Albucaasis and thus the Arabic doctrines entered into the very blood of

Italian physicians, out of which a very long time for its purification was required, on the way back to classic Greek medicine.

Surgery, however, in this age, had two men whose names and works, history will ever record with honor. These were *Guilielmo da Saliceto* and *Lanfranco*. *Guilielmo* Placentio, native of Saliceto, was the most learned surgeon in the art, and the best instructed of his time, the one who merited the greatest fame, both for his works and his practice, and because he wrote *that which he saw*, thus exhibiting the fruit of his own experience and his own operations and cures. He studied at Bologna, following the precepts of Taddeo and Mondino, and of Del Bono who there taught surgery. He had, as companion, Bertruccio, Mondino's dissector, who was afterwards master to Guido di Chauliac. He was born, it is said, in 1210; he was a learned physician and cleric; he wrote some works on medicine, and a classic treatise on surgery in 1275. After having been established in Placenza, he went to Verona, where he died in 1277. *Guilielmo* opened human dead bodies, wrote important histories of the diseases of men and women, and treated largely and with much ability, of wounds. A disciple and friend of *Guilielmo* was *Lanfranco Da Milano*, who also was a learned physician and cleric, whose life was afflicted and glorious; to him is due the honor of having carried Italian surgery into France, at a time when the precepts and aphorisms of the school of Salerno had sole dominion there. Nourished by the teachings of the chief physicians and surgeons of Bologna, and a scholar of Da Saliceto, he practiced however ably in Milan, which was then divided by factions, and he was banished by Matteo Visconti. He went into exile, first in Lyons, where he lectured on surgery; then he moved to Paris, where the art was as much in decay as theology was in bloom. On invitation of the Dean of the Faculty of Medicine, he here taught surgery publicly, with greater applause than any man could draw from private teaching. He became an associate of the college of surgeons, and had the chief part in the revival, or if it please so to say in the birth of surgery in France. He composed his *Chirurgia Magna et parva* (1296), which went through several editions.

He died at Paris at the end of the 13th, or in the beginning of the 14th Century. He was well acquainted with the medical schools, and instructed in every improvement in surgery. In his *Chirurgia Magna*, which contains an abundance of facts, doctrines,

and wise precepts, all arranged with much discernment, at § 248 D. we read these words, which should ever remain impressed on the mind of every one who consecrates himself to the healing art: "It is necessary to know that no one can become a good physician without the knowledge of surgical operations, nor can any surgeon have worth if he is ignorant of medicine. He must understand both."

After these great masters, Italian surgery, which after its revival had followed the wise instructions of the Greek and Roman schools, fell somewhat from its splendor, but appeared to flourish in France, where Lanfranco had introduced it.

The author here introduces the names of fifteen teachers, whose failure to avert decay of the art he seems reluctant to divulge. In all probability these *nomi autorevoli* were somewhat like the Mantuan apothecary's "beggarly account of empty boxes," and but for filling in purposes, they might better have been permitted to remain in limbo? He, however, offers the following rather lame apology for their ill success.

"Two causes at that time obstructed and arrested, in part, that progress which the earlier masters had initiated; the first was the supremacy which the Arabic doctrines, then in vogue, arrogated. These were but little calculated, in themselves, to give freedom to reason, and the physicians and surgeons above named (to-wit, the fifteen empty boxes), clung to them with warm love; the second cause was the passion for astrology, and afterwards for alchemy which insatuated the minds of the cultivators of the healing art, and often led them into wild fancies. Among these fanatics were Pietro d'Abano, Amaldo da Villanova and Raimondo Lullo. But even in this period, which included the 14th and 15th centuries, the teachings of the great surgeons of the 13th, Ruggiero Guglielmo and Lanfranco, were not forgotten; whoever practiced the art was a physician, and, as such, also a cleric, nor did they who practiced, believe that in doing so they soiled the doctoral or the ecclesiastic garb. In this relation very eloquent are the words of Haller, in allusion to this long period: "In Italia, scientiarum matre, nunquam Chirurgia se abdicarunt. Et XII sæculo et XIV, et demum XV, et XVI sæculo professores medici Academiæ Bononinensis, Patavinae, aliarum in Italia illustrium scholarum, et manu curaverunt et consilio, et inter istos viros summi chirurgi existerunt." Surgery, by good fortune, never fell into that abandonment and despal in Italy

into which it was led in France in the centuries of which I have spoken, having never been in our country as it was there, turned over into the hands of barbers and bathers."

(Here follows another long list of exhumed celebrities, the rescuing of whose names from oblivion, savors more of pious patriotism than of historic discretion, and we cannot withhold our thanks to the author for the following winding up of the progress of surgery during the 15th century.)

"That which I can assert is that the Italian surgeons, in these ages, in which Arabism and Astrology had a fruitful field, and Alchemy saw the light, never ceased to keep alive the sacred fire of knowledge, which they diffused into other regions; and embracing the whole range of the art, they omitted not to occupy themselves in obstetrics and the diseases of women, and especially to follow up that malady, old or new, as it might be, which at the close of the 15th century, under the reproachful epithet of *Syphilis*, made so much havoc in Italy. The first writers on this disease were Niccola Leonineano (1497), Coreadino Ghilino (1498), Sebastiano Aquilano (1498), Giacomo Cataneo (1499), and Giorgio Valla, of Brescia."

In the 15th century there were besides the master surgeons, especially in Italy, empirics and itinerant operators, who, not having gone out from the university schools, but having been educated in their own families, in some branch of surgery, and having from their success acquired celebrity, performed operations which the doctors did not understand. First among these were the Branca family, of Catania, in Sicily, who were restorers of noses and other soft parts, and originators of the methods and important processes of autoplasty. To these ran all who, having traveled, or fought, among the Infidels, had been so unfortunate as to lose the soft part of the nose,—a disfigurement which those barbarous countries inflicted on prisoners of war or other captives. Antonio Branca, the son of the chief empiric, restored, also, the lips and ears, and was the founder of that method afterwards vaunted by Tagliacozzi, of Bologna, of refitting the soft nose from the skin of the arm. This restorative art, which some allege to have originated in India, and of which Celsus makes mention, passed from the Branca family to the Baldassarre, and from them to those of Vianeo, and the Fojani, of Calabria, Flaminio Crasso, when Tagliacozzi made it common in Bologna, taught it, and confirmed it by his own operations.

In the mediæval period and almost throughout the fifteenth century surgery in Germany, Spain and Portugal showed some glimpses of that light which shone over Italy and France, but they were so feeble as not to merit record. The works known were few, or of small size, and they remained in manuscript. I cite, in Germany only, the *Iconographia Anatomica*, of Peiligg and Kundt, and the *Treatise of Surgery*, by Saler, published at Brunswick. In these countries a blind devotion to Arabism and fanatical superstitions, but in Germany especially that ill-founded boasting haughtiness of the sapient physicians, sometimes clerics, and always ferocious despisers of surgical operations, which were therefore abandoned to an obedient, ignorant and servile class, had great influence in preventing the advancement of surgical art. The togated or ecclesiastical physician, from the abyss of his wisdom ordered, and the manual laic operated, and kept silence.

In the end of the fifteenth century Europe came into rich fortunes, and occupied a field on which to restore her studies, and to found those of her future schools. These fortunes were the invention of printing, the discovery of America and of lost and unknown manuscripts. Tomasso di Saleano, who afterwards, under the title of Nicolas V, died in the chair of St. Peter, found a copy of Celsus and several of other Greek and Roman authors of the times of the lesser Greeks. The study of Greek was then (1393) rendered familiar in Italy by Crisolara, but especially in Florence by Marcilio Ficino, through whom, when printing was introduced by Magonza into Italy, and, as it were, found refuge here, the most classic books of Greek literature and philosophy were given to the light, and the works of Hippocrates reappeared. Celsus was printed first in Florence in 1478, and afterwards several editions were issued in Milan and Venice. After Celsus came speedily the works of Aristotle, Galen and other distinguished physicians of antiquity. Medical studies were re-born. In the schools the authority of the Arabs diminished as much as that of Hippocrates, Celsus and Galen increased. Græco-Roman medicine resumed her empire, gave to men of the art her instructions and was restored in riches and splendor in the short space of half a century. By the aid of printing the works of the most sovereign geniuses of antiquity came back to light.

TRI-STATE MEDICAL SOCIETY.

[Reported for the JOURNAL.]

MILK-SICKNESS; ITS MICROSCOPY. By J. GARDNER, M. D., of Bedford, Ind.

In August of the present year there occurred in the southwest part of Lawrence county, Ind., several cases of milk-sickness, two of which were fatal. Though not in the active practice of medicine, I took a lively interest in the disease because of its obscure and unsettled pathology. The most of you know how unsatisfactory is the literature on this disease and how uncertain are any of the conclusions that have been reached by authors.

Feeling that the true cause or causes of the disease could only be discovered by abandoning the beaten track and making a new departure, I did so, with what degree of success I leave you to judge after you have heard the results.

Perhaps, before going further, a brief synopsis of the leading and generally constant symptoms will be in order. There is always nausea. This may be constant or it may be intermittent and paroxysmal. Where constant, the smallest quantity of either fluids or solids taken into the stomach produces retching, and vomiting until the stomach becomes wholly empty, when it ceases until the stomach receives something to make the nausea again become active vomiting. In the intermittent form the paroxysms are usually about an hour apart, and in the intervals between, the nausea is absent and the patient comparatively easy. There are always more or less eructations of an offensive gas. The odor of the body and of the breath are of a peculiarly offensive character, and are in themselves sufficient in most cases for founding a diagnosis. The respiration is of that slow and sighing character, described as "*tired*." The pulse is usually small and sometimes frequent, though this not always so. This, with the full and frequently labored action of the heart, is another peculiarity of the disease. The heart throbs and labors and beats against the thoracic walls with as much energy as in the worst case of hypertrophy and valvular insufficiency at the time the radial artery may show but a weak and thready pulse, and

the respirations are down to twelve per minute. Obstinate constipation is the last of the specially diagnostic signs to which I shall call your attention.

Before death the patient always passes into a comatose condition, the probable cause of which will be given further along when the microscopic pathology is discussed.

The reception of the disease has never been known to take place otherwise than by the stomach. The flesh, milk or butter of infected animals is the cause to which it may usually be traced, and more than one person is generally prostrated by the same cause. Sometimes different members of the same family are affected in different degrees, all the way from the worst form to that peculiar condition in which the legs are so weak as to refuse to perform their office, which last form goes by the expressive vernacular title of "*slows*"

Milch cows may give no signs of the disease until they have imparted it to their calves, or through the medium of milk and butter, have infected whole families. But there are other cases that occur in which neither the flesh of animals nor the products of the dairy have been partaken of, which adds an element of uncertainty to the supposed causes to which the disease has alone been attributed.

Further along I propose to describe what the microscope says on that point. Perhaps it would not be amiss to mention at this place some of the substances that have borne the unenviable notoriety of producing this baneful malady in animals. They are the metals *Cobalt arsenic, rhus toxicodendron*, or poison sumach, *eupatorium agertoides*, a species of weed having a white or purple top that grows in great abundance in woods and clearings almost everywhere and in localities where milk-sickness was never known. Of these substances, some occur where the disease was never known and the others are certainly absent where the disease is most known, which fact certainly eliminates all of them from the list of possible factors.

From the capability of the septic matter, whatever it might be, of perpetuating the disease in a continuous chain of animals as one should eat the flesh of another, you will see at once that any of the known organic or mineral poisons would, by a rapid system of attenuation, become harmless in the second, or at most, the third remove from the first animal eaten, which fact excludes all non vitalized substances.

Armed with a few clean vials I started out on my collecting tour. The house where there had been two deaths still had one sufferer from the disease—a young lady. As the medical gentlemen in charge of the case were my intimate friends I did not hesitate to ask for a few drops of blood from the arm of the young lady. She was willing I should have it, but some of her friends being under the impression that the government had offered a large reward for the discovery of the cause of milk-sickness, I was, after some parleying, refused the privilege of getting the blood, for fear I might make something by it, and to clinch the matter, a neighboring man, who ought to be embalmed as the champion fool of the 19th century, oracularly asserted that three drops of blood taken from her would, without fail, kill her. However, I went to the spring—a stagnant pool from which the family used water—and took a vial of that. I then went to a farm near by where a heifer had an undoubtedly well marked case of the slows, and got some blood from her ear and hastened to my quarters at the Kaolin mine, to examine it. Perhaps it is as well for me to say here that the heifer died two days later. The blood flowed from the cut with difficulty. It was of the most intense scarlet. On submitting the blood on a slip and converging with a thin cover-glass to a Spencer $\frac{1}{16}$ objective, I was startled but not surprised to see that in the small space embraced in the field, and which could be covered by a transverse section of a fine cambric needle, there were countless multitudes of actively-moving, writhing, twisting bacteria, that bore in size and behavior a striking resemblance to that form of bacteria called by naturalists *bacilla subtilissima*. They seemed to cling to the blood disks, to be between them, to be within some of them, and to be in such an innumerable multitude as to fairly fill the observer with horror at the bare thought that the blood of even a domestic animal should have such terrible inmates. Not only I, but numbers of others saw them, and seeing were convinced. But further, some dogs ate of the dead cow and they too were attacked by the slows, and, in brief, their blood also showed the same forms of bacteria. Knowing that some of the family attacked had not eaten of milk or butter but had still suffered from the disease, and wanting a reason for it I subjected the water obtained from the spring to a like process and found that, though it appeared clear and nice to the unaided vis-

ion, it was as full of the same forms of bacteria as appeared in the blood, as was the blood itself.

Next I took some milk from a cow whose milk was used in another family where one case of the slows had occurred and found that that also showed the same living organisms as the blood and water. Since then the blood of two persons, not severely attacked has been examined microscopically and the same phenomena, only in a lesser degree were present. In size these organisms are so small that a couple of hundred might ride on the same blood disk and not be badly off for room. The blood disk, you will bear in mind, is but $\frac{1}{3200}$ of an inch in diameter. It appears to me that either the baccilla themselves, or some kindred organisms are capable of undergoing further enlargement and of laying aside their active condition and becoming matted and tangled together and of accumulating and aggregating together to such an extent as to block up the terminal capillaries and thus the cold clammy hands and feet always present in milk-sickness. The *stasis* in the lung capillaries, from the same cause, accounts for the sighing respiration, and labored cardiac action to which I alluded in the beginning of this paper.

Now that the gravity of the disease may be gauged by the numbers of those minute plants that infest it, may be promptly determined, I have no doubt, and that their presence or absence determines the fact of the existence of the disease I am fully assured.

The slows never prevail in wet seasons, when the springs are flush and the branches full. I do not assert that the water is the only place outside of animals that bacteria may propagate in sufficient quantities to cause the specific effect described, as this field is too new for such exclusiveness, but we may rest assured that if the cattle and the families have water of unquestionable purity the other sources and niduses will not be prominent factors in its production.

Gastritis and bilious fever are the only diseases that the practitioner will ever be likely to confound with slows. The treatment of slows is in itself a vindication of my pathology. Brandy and honey or syrup, and sulphur and magnesia, given in full doses every two hours, speedily produce a good effect, and convalescence soon follows the aperient effects of the latter remedies. The brandy, in bad cases, may be pushed to the extent of a pint in the twenty-four hours, and with the very best effects. One

should be positive of the disease before following such heroic treatment, as in gastritis or in remittent fever it would be apt to have grave consequences. I would like for any of my medical confreres who have good microscopes to follow up this line of investigation and address me at Bedford, Ind., giving results.

DISCUSSION.

DR. FREELAND:—Forty years ago I visited a district that suffered intensely from this disease. There is a question I would ask: How is it in these districts milk-sickness has entirely passed away? I have seen a case commencing with a cow that trembled and fell down. The cow presented no appearance of disease. In those districts where I first practiced, the country was full of it. To-day there is scarcely a case there. If it depended on water or on any one thing, how is it that it has passed away. The essayist has mentioned brandy. That was our sheet anchor forty years ago.

DR. JONES:—I want to say a few words on the pathology of milk-sickness. I have had experience for the last forty years in treating that disease. I have been of the opinion for many years that the disease was caused by a microscopic poison; a specific matter that never rises many inches from the ground; that it is deposited on the herbage, and eaten by the cattle in the morning while the dew is visible. It does not exist in clear open lands or prairies. A day or two since I was reading an article from a gentlemen in Illinois, published in the *Toledo Medical Journal*. This writer takes the position that it is a poison deposited on decomposing wood and it gets into the springs and streams so that that the water is impregnated with it at times, at other times it is not. I have long entertained the opinion that it was something of that kind generated in that way.

DR. T. F. RUMBOLD:—I wish to remark that in making microscopical examinations great care should be taken to exclude the air from every specimen to be placed under the microscope. Do not take milk that is two or three days old, but take it immediately from the udder of the cow in such a manner that the air will be excluded from the specimen. Without such a precaution the examiner will be almost certain to be deceived. It is useless to examine putrid flesh for the same reason. Dr. Gardner's paper is a very important one and should be made the basis of a

very thorough microscopical examination of the blood and the secretions. The important information in this paper of Dr. Gardner cannot be overestimated.

DR. GARDNER—In reply to all of these things I would say, I do not take the position that it may not breed on vegetation where it is damp. I know it will. In reply to Dr. Rumbold I may say I took the specimen right from the living animal and put it on the slide and from the slide to the microscope, and found the bacilla there at the instant of being drawn. I mixed no fluid with the blood; it was not necessary.

DR. HIBBERD—Were there any other diseases previously, i. e., immediately before or after these cases of milk-sickness? Did you have pure water?

DR. GARDNER—No, it was at a remarkable healthy time and on a high ridge where there was pure air. The water was taken from what we call "sipes." Good, wholesome drinking water was not usually an easy thing to get. They had to take "sipe" water.

DR. RUMBOLD—Did you examine the blood of any other animal at that time that was not affected with the disease but had an opportunity to drink the same water?

DR. GARDNER—Not at that immediate time, but there was a blind horse that got down. I suspected it had the "slows." It was really a case of starvation. I got some blood of it and put it on the slide, but it showed no appearance of the disease. The old horse got his water from a spring that was near by and which looked badly.

DR. HIBBERD—In 1841 I was sent for to go about ten miles from my office to see a patient that was said to be very sick. It was a flat country in which so-called malarial diseases are very prevalent. On the road going to the sick man, the messenger told me the patient had milk sickness, and I had been sent for because of my reputation in curing that disease. That was agreeable to me! I had never seen a case of milk-sickness; did not know how to cure it any more than the man in the moon, but as I had obtained a reputation, it was agreeable news. The trepidation we sometimes experience passed off and I was shown the house where the sick man lay. I had treated several cases of malarial fever in that locality and this, I found, had established my reputation as an expert doctor in milk-sickness. I was in a part of

the country where malarial diseases were rife every year. I found the man's case just the same as the others and I should not have thought it was milk-sickness unless I had been told so. I do not say there was constant vomiting but he vomited and I treated him successfully. I treated a large number of cases in that neighborhood, only two of which died and that resulted from broken down constitutions, brought on by whisky drinking. Usually there was not much trouble with these cases, but if the constitution was broken they gave way. I wrote a paper the following year on milk-sickness and it was published. I took the view that it was of malarial origin. Still there were some peculiarities about it that took it out of the category of malarial fever. It should be described as malaria with something added. The paper read this morning, it seems to me, is a superb start for an investigation. The author seems to me to generalize from too narrow a foundation, to draw too large a conclusion from the observation made. It needs to go a great deal further, but if it turns out that it is bacteria or some other organism in the circulating fluid in animals and man, why we will have made immense steps in deciding what this extraordinary disease does grow out of. I will say in conclusion, I think the author of the paper deserves our thanks for the beginning he has made in this direction. I hope he and others will continue the investigation from year to year. Then we will have a foundation from which to start with perfect safety so as to get at the origin of the disease.

DR. BREY—What is the pathology of this disease? A great deal has been said about the cause of the disease, but nothing about its pathology. When I came here in the fall of 1835, this disease prevailed in this section of country, as it did in other parts of this State, Kentucky and Illinois. I was associated with Dr. Crafton, a man of extraordinary mind. He made several post-mortem examinations of persons who died of milk-sickness. In every case there was inflammation of the mucous membrane of the stomach, and if the disease was not arrested in its progress it extended from the mucous membrane of the stomach to the bowels. The pyloric orifice was particularly implicated. He states it was occasioned by a specific poison, and that it spent its force on the follicles of the mucous membrane of the stomach. It is seldom you see an acute case in this disease; it is generally of a low typhoid character, indicating a poison that spent its force upon the blood.

FRACTURES OF THE SPINE, WITH CASES. By J. R. WEIST, M. D.,
of Richmond, Ind.

When we consider the irregular forms of the vertebra, and the overlapping of their various processes, we can readily understand why, when violence greater than the spine can withstand is directed upon it, and it yields to the force, the injury is generally of mixed character, consisting of both fracture and dislocation. This is more likely of course to be the case in some portions of the spinal column than in others. "In the dorsal region the bones are so closely locked, and the processes, especially the spinous, so long and overhanging, that simple dislocation appears impossible."

While Malgaigne and others report dislocations of the dorsal vertebra, a consideration of the anatomy of their processes will render it apparent that even a partial laxation forwards without a fracture of the oblique apophyses is impossible, and that backwards, the luxation can only occur to the extent of about one-quarter of an inch (Hamilton), constituting only a species of articular diastases, without breaking off the articulating apophyses of the lower corresponding vertebra.

As a practical question the proportionate amount of fracture compared with dislocation, in serious injuries of the spine, is of little moment. The question of great interest to the surgeon in these cases is the condition of the spinal cord, and this organ can be crushed or have its functions destroyed equally by fracture or dislocation. Besides, if a reduction of the displaced bones is attempted, the method of effecting it will be the same in both cases, and the prospect of recovery is not more encouraging in the one case than in the other; therefore, in the cases I shall report, no great effort was made to determine the relative amount of fracture and dislocation.

As already intimated, the great danger in these cases arises from injury to the spinal cord, and it is easy to understand why this organ can hardly escape serious damage, when there is extensive fracture or dislocation. As any extensive lesion of the cord is attended with paralysis of parts below the injury, the gravity of the accident, so far as endangering life is concerned, varies

with the part of the spine injured. The higher the injury, the greater the danger.

In most cases of fracture or dislocation of the spine, there is paralysis, more or less complete in the parts below. Yet there are well authenticated cases in which it was absent.

The danger arising from compression, or injury to the cord, is so great that generally surgeons advise that no effort be made at reduction in these cases, even when there is great deformity, from a fear that it will result in a further injury to the cord. But this rule of non-interference cannot apply alike in all cases. When the injury is at, or above the fourth cervical vertebra, any serious injury to the cord means instant death. When, therefore, any displacement of the bones in this part of the spine exists, an attempt at reduction cannot be made without serious consideration, as it may result in the sudden death of the patient. When, however, the injury is in the lower dorsal, or lumbar region, it must certainly be often proper to attempt reduction—although the weight of surgical authority is perhaps against it—and for several reasons. First, because a number of cases have been reported in which reduction has been successfully accomplished. Second, because proper efforts are not likely to make the existing trouble worse. Compression of the cord here does not mean death, so there is no danger of suddenly killing the patient while seeking to render him a service.

When there is incomplete paralysis, it is evident that only slight injury has been done to the cord—either from concussion or slight pressure. If paralysis depends upon the first cause, it will probably soon disappear; while if from the second, a replacement of the bones will likely relieve the compression. While in these cases of complete paralysis, irreparable damage has most likely been already done, and our efforts cannot make matters worse, I believe then that Hamilton indicates the correct method of treating these cases, when he says: "I think we cannot hesitate when the nature of the accident is fully made out, and especially when the dislocation or fracture has occurred in the lower dorsal vertebra, to attempt the reduction by forcible extension, united with judicious lateral motion or with a certain amount of direct pressure upon the projecting spines."

The two following cases are presented for the purpose of contrasting the results of the two plans of treatment. As will be

observed the injuries are of very similar character, and therefore the cases serve well the purpose intended.

On March 22, 1878, I was called to see Mr. C., aged about 21, who had been injured by the falling of an elevator in one of our manufacturing establishments. While standing under the elevator in a stooping position, the rope supporting it gave away—it was at the time loaded with a quantity of lumber—and he was caught and crushed to the ground. When I saw him, he had been removed from the wreck, and laid on a board. He was only partially conscious. I found an injury of the back at the tenth and eleventh dorsal vertebra. There was marked angular curvature at this point, caused chiefly by projection of the spinous process of the tenth dorsal vertebra. There was nearly complete paralysis—both of motion and of sensation—in the body below the injury. There was decided disturbance of respiration, this being quick and jerky. In addition to the injury described, there was a serious comminuted fracture of both bones of the left leg. The deformity of the back was so great that the bystanders recognized that it was broken. They of course were possessed by the popular idea that this meant death.

I had the young man carefully conveyed to his home, on the board, and placed in bed with as little disturbance as possible, no effort being made to correct the deformity of the back. The leg was dressed at first with Pott's splint, and afterwards with plaster Paris bandage. Great pain at seat of injury in the back was complained of for many days; this was greatly increased by any motion of the body. The respiration hardly improved for ten days. It was necessary to employ the catheter to empty the bladder, for three weeks. After about two weeks there was gradual improvement in the paralysis—sensation returning before motion—but it was four months before it had nearly passed away, and he could be out of bed, and move about a little on crutches. By careful management, no bed sores of consequence—that are often so troublesome and dangerous in these cases—formed. The injury to the leg was perfectly repaired without unusual difficulty.

After several months the crutches were laid aside, and there was gradual improvement. Now, about sixteen months after the accident, he is just beginning to be able to do a little work. No paralysis remains, but the back is weak and at times painful. The curvature of the spine and the projection of the spinous pro-

cess of the vertebra remains very nearly the same as at the time of the accident. As these cases usually terminate, this may be considered a remarkably good result.

June 25, 1879.—I was called to see Mr. B., a healthy farmer, æt. 30 years, whose back the messenger said was broken. The accident had occurred in this manner. He was on top of a load of hay that was being driven under a shed across which some beams were placed. As he was passing under the shed he discovered that he was likely to be caught by the timbers above. He was sitting down on the hay; he threw his body forward and lowered his head; still there was not sufficient room, and the upper part of his shoulders and spine came in contact with the obstruction above, and he was badly crushed. He was unconscious for some time after the accident. The discovery was made that there was a serious injury with great deformity of his back. When I saw him a few hours later, he was in great agony, complaining of violent pain in the back, and of great difficulty in breathing.

On examination I found evidence of great shock, pulse being 140, and very feeble. The skin cool and bathed in perspiration; respiration 35, and difficult; marked deformity of the spine was found at the 9th and 10th dorsal vertebra. On each side of the spine there was decided swelling near the point of curvature. At the upper part of the shoulders, the skin was abraded and much bruised.

There was partial loss of sensation below the seat of injury, more marked on the right than on the left side. No paralysis of motion seemed to exist. As any motion of the body produced the most agonizing pains in the back, ether was recommended. The clothing was removed and some further examination was made of the injury. The spinous process of the 9th dorsal vertebra was much displaced backward, it being possible to distinctly place the finger under it. The examination rendered the conclusion inevitable that there was fracture with slight dislocation backwards of the ninth dorsal vertebra; some effort by extension and pressure was made to reduce the displacement, with but slight success. During these maneuvers distinct bony crepitation was felt. Anodynes and stimulants being ordered, the patient was left for several hours until he recovered from the shock.

Upon visiting the patient again, some fifteen hours after the

accident, reaction was found pretty well established. The respiration, however, was not improved, and the pain only kept in check by the anodynes; paralysis about the same. I now determined to institute more active measures. He was carefully lifted out of bed, and held erect while a tracing of his spine was made. He was then suspended *à la Sayre*, by an improved apparatus, that answered the purpose well. While he was completely suspended, I passed one arm around the body just above the hips and made strong extension with slight rotatory movements; at the same time with the other hand I made pressure at the injured and projecting parts of the spine. These efforts resulted in straightening the spine very materially, as will be seen from the second tracing made afterwards. While the extension and pressure were being made, a very distinct bony crepitation was again felt.

The plaster jacket was now hastily, but carefully applied. As soon as the plaster was sufficiently firm, he was taken down and placed in bed. After he had recovered a little from the exhaustion caused by the suspension, all this being done without ether, it was found that his breathing had greatly improved, the bladder having been relieved and a slight anodyne given; he was left in comparative comfort. On my visit next day, his condition was greatly improved, the respiration being perfectly free and easy, with restoration of sensation to parts below the injury; the bladder had been relieved naturally. He could now be rolled over with little pain resulting, and could lie either on his back or his side.

Steady improvement continued; on the seventh day he could turn himself in bed without assistance, and on the twelfth day he was carried on a stretcher to his father's house, about two miles distant. On the fifteenth day he was able to slowly work himself out of bed and stand on his feet. On the twentieth day a new jacket was applied and worn until September 1st. November 2d sixty-seven days after the accident, his back is as strong as before the injury.

The plaster jacket proved in this case to be a splendid apparatus. Probably no other form of dressing could have accomplished as much in the way of rendering the patient comfortable, and none certainly could have secured a more perfect result.

When I applied the plaster dressing in this case, I was not

aware that it had been used in such cases, but I learn from Prof. Sayre that it has been used in a similar way several times in the Bellevue Hospital, with very satisfactory results; probably others also have thus used the plaster jacket. However this may be, I make this report at the request of Prof. Sayre, and in doing so fully indorse his statement, that "the plaster jacket is the only form of dressing that has been yet devised that will keep a fractured spine perfectly at rest."

DISCUSSION.

DR. FREELAND—A case occurs to me in the person of my own son. The fourth cervical vertebra was broken laterally, it projected fully half an inch. There was no paralysis. I refused to allow any interference with it. I determined to leave it to nature. It is now twenty-five years since it happened. He is now a strong, able-bodied man.

Clinical Reports from Private Practice.

EARLY MENSTRUATION. By J. W. FOSTER, M, D., of Kansas City, Mo.,

In October, 1878, while traveling in Southwest Mo., my attention was called to a very interesting case of early menstruation. The child, then about two years old, had been menstruating some five months, the discharges occurring at regular intervals of three and a half weeks. There was nothing unusually present in the case with the exception of the early age of the patient. Her father was very much exercised about the welfare of his little daughter and his solicitations ever very earnest as to the future probability of the case. He had consulted many of the local physicians and they had never seen an example of so early menstruation before. I assured the father that he need not be apprehensive of any immediate or remote danger, as the child was as healthy and perfectly developed as Venus de Medici. More than fourteen months have now elapsed since this case came under my observation and the child has remained perfectly healthy ever since. She continues to menstruate with all the phenomena pertaining to this function. Her breasts are

showing signs of advanced development and the pudenda also well coated with a soft silky hair, showing unmistakable signs that she is susceptible of impregnation. Another peculiar expression in the character of this child at the present age is a marked shyness or timidity fully expressing the womanly decorum and manner, which we so ardently admire in the gentler sex. In 1870, I saw in Cincinnati a case similar to this one. In that instance the child began menstruating at the age of seventeen months and when I saw her she was twenty-seven months old and presented all the features of a girl fully arrived at puberty. I have been unable to learn anything of the subsequent history of this last mentioned case, from the fact that in the spring of '70, her parents took her to Germany, they being Germans. It was their intention to visit the various medical schools and hospitals of Europe, and exhibit this early freak of nature.

ENCEPHALOID OF LEFT KIDNEY. By E. A. WAGGENER, M. D.,
of Carrollton, Mo.

Boy æt. three one-half years, a farmer's son; family history good, health good up to June last.

In harvest time, the exact date not known, he came in from the horse-lot one day and stated to his mother that a colt had tramped on him and he complained of a 'hurting' in his left side in region of kidney. His person was examined, but no marks found; notwithstanding the child continued to complain of pain in the locality mentioned and after a lapse of a week or ten days a 'lump' was discovered where pain had been located.

The patient was carried to a physician and put upon a course of treatment. Tumor continued to enlarge very rapidly and about the 1st of October boy was brought to our office for examination by Drs. Austin, Cooper and myself. At that time the tumor filled left iliac fossa, extending up to the ribs and forward and one inch to the right of the median line, filling completely all the space within this area; smooth, irregularly ovoidal, elastic or semi-solid feel; constitutional effects plainly visible. We were not able to promise the parents anything in the way of successful treatment, though the case was not ours, and we afterwards learned that it passed into the hands of a homœopathic doctor who had charge of it up to time of death, which occurred at 7 P. M. on the 21st inst. At the request of the family, Drs. J. C. Cooper, W. A. Tull and myself made post-mortem examination at 9 A. M. the following day. I will only describe in brief the appearances inside of the abdomen, viz. Tu-

mor filled the entire cavity, producing enormous distension, pushing diaphragm up to the fourth rib on each side, and adhered to the spleen, pancreas, stomach, diaphragm; on the left side portions of small and large intestine, the descending colon being on the anterior surface of the tumor and one and one-half inches to the right of the median line and firmly adhered. In fact the tumor was adhered to everything in the left half of the abdominal cavity; spleen and right kidney healthy in appearance, though the spleen is smaller than normal; left lobe of the liver normal except in size; right lobe very much contracted; black-mottled and studded with numerous abscesses from the size of a three cent piece to a quarter of a dollar. Tumor removed by enucleation except in immediate vicinity of the left kidney, where adhesions were so firm that dissection had to be resorted to. Appearance after removal: Irregular ovoidal, nodulated, mottled-purplish and very vascular, and some places almost black, resembling mellinosis. Measured $9\frac{1}{2}$ inches in its shortest and $11\frac{1}{2}$ inches in its longest diameter and weighed $9\frac{1}{2}$ pounds. On section the pelvis, a few pyramids and a considerable quantity of cortical substance of the kidney was found at the base of the tumor, thus fixing beyond doubt its origin.

GRADUATING EXERCISES OF THE ST. LOUIS MEDICAL COLLEGE.

THE LIST OF GRADUATES. A SYNOPSIS OF PROF. J. T. HODGEN'S ADDRESS TO THE CLASS, AND THE PRESENTATION OF A CADUCEUS TO HIM BY DR. C. W. STEVENSIN BEHALF OF DR. CALVIN M. CASE, ONE OF THE GRADUATES.

The exercises were opened by prayer by Rev. W. G. Eliot, president of the board of trustees. The degrees were conferred by Prof. J. B. Johnson with appropriate remarks.

The following are the names of the graduates:

J. S. Deaderick,
Calvin M. Case,
E. F. Hauck,
Louis Hauck,
Douglas C. Ramsey,
W. J. Wait,
Sutton W. Pilley,
John A. Hornsby,
Thomas A. Smith,
John C. Welch,

George A. Auerswald,
George W. Farrer,
Ralph Staples Bragg,
E. F. Fiedemann,
Wm. S. Hutchinson,
Fred. G. Zenk,
Elhanon Chinn,
Augustus S. Chouteau,
Benj. F. Holcombe,
Hugh L. Gault,

A. H. Ohmann-Dumesnil,	George W. Toney,
G. M. Stelzlini,	John L. Sims,
R. J. Stoffel,	Dodson Christian,
Thomas H. Ensor,	Phineas K. Dow,
John McG. Oglesby,	Chas. F. W. Wilhelmj,
Wm. T. Gerisch,	Fred. L. Loring,
Squire H. Redmon,	Fred. S. Dewey,
E. A. Junkin,	George F. Hulbert,
Joseph R. Hollowbush,	August F. Wohlfarth,
John B. Leffingwell,	Fred. O. Meyer,
Otto C. Meyer.	

DR. HODGEN'S ADDRESS.

I may be permitted to introduce the subject of my remarks this evening with the question, Whence come the responsibilities that attach to living beings?

In order that I may be understood, I would go far back to the lower forms of living matter, and call your attention to the fact that lying thousands of feet beneath the ocean's surface, at its very bottom, is a layer of living matter—a material which possesses attributes common to other living matter. It gathers from the material which surrounds it the elements necessary for its maintenance and growth. It absorbs, it circulates, it is nourished, it grows. It breathes, it eliminates, it has a power of changing form and changing location. It is called bioplasm. But it has no means of bringing itself in contact with objects outside of itself; it has no organs of special sense. It bears no responsibility growing out of relation to the existence about it. It lives without pleasure and dies without pain.

There is one word which I have occasion to use this evening that may not be familiar to every individual of this large audience. The word is differentiation. The very expression conveys to your mind an idea of difference. It means the changing form or character. This term is applied not only to the forms of matter, but is applied to the functions exercised through the change of matter, so that we have a differentiation, not only in living forms, but in the performance of the offices of living beings. It means a division, not only of structure, but a division of function. It means a division of labor. By it it is made possible that the varied functions performed by the living matter to which I have already called your attention, (which forms a stratum on the bed of the ocean), instead of being performed by the simple material, structureless, homogeneous bioplasm without line or fibre, without special organs, the offices of digestion, of assimilation, of respiration, of nutrition, of growth, of elimination, of motion, instead of being performed by one common mass, are performed by organs specially designed, each for its own special office. Thus we have in higher forms of living being a digestive apparatus, by which the materials ta-

ken as food are brought forward in a certain condition of change, rendering them more easily taken up by the vessels which are to carry them to the parts to be nourished. We have a circulatory system which does the transportation duty. We have a special breathing apparatus, a special locomotory apparatus, and special organs for elimination of effete and worn out particles, and by this multiplication of organs, we have a very much more perfect organism than is represented in the simple bioplasm, but in order that these diverse parts performing different functions, working harmoniously in the building up and maintenance of an organism, and the execution of its varied functions, it is necessary that there should be a link binding the parts to form one harmonious whole; and this link is furnished in the nervous system.

That you may understand more clearly what shall follow, we must tax you with a reiteration of a little rudimentary anatomy. As the lowest form of independent nervous mechanism, we have the simple nervous arc, consisting of a fibre beginning in a sensitive surface, and terminating in a mass or knot of cells or granules, called a ganglion, and a second fibre reaching outward from this ganglion and terminating in an organ of motion. The office of such a simple nervous arc is, that if an irritant be applied to the sensory surface it produces an impression, which is transmitted by the afferent nerve to the ganglionic centres, and radiated from that point to the organ of motion through the efferent fibres.

And the peculiarity of the action resulting, is that it is always in direct proportion to the stimulation. It never goes beyond a certain fixed point. A little higher in the scale of the nervous mechanism we have another series of ganglia, with connecting fibres similar to those which are described as belonging to the simple nervous arc, but in addition, other fibres connecting various ganglia with each other which are themselves connected with various organs of locomotion. This more complex mechanism is capable of more complex functions, and if an irritant be applied to the termination of the sensory nerve, we have a response, not always the same and not always precisely in proportion to the stimulation applied.

This is well illustrated in the action of the spinal cord of the decapitated frog, which, when the flank be tickled or irritated, moves the hind foot of the corresponding side through the successive action of a variety of muscles, to accomplish a movement which would result in sweeping from the part irritated, the irritating object. This may be repeated again and again and the same movement that follows in the action of the same limb will be accomplished. But if that limb be held and the stimulus be continued, then another limb will be brought into action and this will be made to go through the movement which would be necessary to remove the irritant.

This sort of action may be called automatic. It is not always

the same character of movement, but it is always designed to accomplish a purpose. It is accomplished by the mechanism, and without volition, without knowledge, without the influence of any of the higher nervous centres that may belong to a more complex nervous system.

Farther on we have volitional centres; those through which the will controls the automatic actions of the automatic centres, and the simple reflex act of the simple nervous arc.

Beyond this and above all, we have what may be called rational centres; centres through which the reason acts. First upon the volitional centres; secondly, through the automatic centres. On a side track in the nervous chain and connected by a switch (if we may use the expression), which leads off from the main track at the volitional centres, we have situated the emotional centres; those centres through which the feelings are operative—through which hate is expressed, or fear, or anger, or envy, or love, or any of the emotions. Most of our actions are automatic. Thus the spinal cord walks though the volitional centres and the rational centres may be otherwise occupied.

The student walking to school in the morning may study his lessons very carefully, whilst the automatic centres will carry him safely down grade, over the level street, across gutters and up hills and around obstructions as perfectly as though the mind were directly engaged in the act of locomotion.

So also the act of talking is automatic. The reason determines that something is to be said, and without thinking of the language to be used, a sentence is framed which may fitly express the thought that has been entertained, and all these centres are susceptible, indeed, are dependent for their highest capabilities of action upon education. Hence the importance of educating, not only the rational centres, but the emotional centres, and educating them in the right direction; for unfortunately education does not always mean a cultivation in the direction which renders us capable of the greatest possible good.

We allow ourselves to become annoyed by trifling matters, and we allow our emotional centres to use our organs of speech in an automatic way. We acquire habits of complaining and have a word of censure for whatever may attract our attention. On the other hand, the automatic centres may be so trained that a word of approval will be uttered, on whatever may be presented to us. Often excuses for the irregularities of others are formed and expressed by those who have cautiously educated the automatic centres of speech.

I have already mentioned that the emotional centres are placed on a side track and that these as well as the rational centres are connected with the volitional centres, and there is often a struggle between the one and the other. How often do we find the emotional centres to exercise the power which determines the action rather than the rational.

So far as possible the emotions ought to be held in subjection to the reason, and by careful cultivation this may be accomplished. Without it the emotions are very sure to carry us out of the way of accomplishing the greatest possible amount of good.

To these centres we have added organs of special sense; of touch, of smell, of hearing, of taste, of sight, and these bring us into relation with the surrounding world. They make us the associates of those about us, and these organs of special sense, together with the ganglionic centres to which I have referred, makes us responsible to ourselves and to those who are about us.

Connected with these ganglionic centres, but more nearly related to the emotional than to any other to which we have called attention, we might mention the possible existence of a certain class of emotional centres that bear more directly on our relations to a Supreme Being. These may be called devotional centres, and through their action we are made to feel the obligations and responsibilities which are forced upon us by the relations which we sustain to the Creator.

Having thus far traced a mechanism through which man is made responsible, and hinted—that the ganglionic centres are susceptible of cultivation—we may go still further in the matter of differentiation, and still increase our responsibilities.

Through the exercise of the will, we may determine when we will differentiate in one direction or another. One man becomes a shoemaker, one a tailor, one devotes his attention to the law, another studies for the ministry, and the fifth becomes a physician, and with the multiplication of offices the possibility of a perfect association and action are rendered more easy.

The possibility of living comfortably is brought within our reach by the multiplication of occupation. Nothing is truer than that a "division of labor is the secret of wealth." It is just as true that the division of labor among individuals is the secret of elevation as it is true that the division of labor among the organs of the body is the secret of a more perfect organism. If, then, with this ultimate differentiation, you gentlemen of the medical class have assumed relations to society which puts you in charge of the health of the community, of the lives of the community, and therefore very largely in possession of the happiness of the community, your responsibilities must be very great.

The process of differentiation does not cease with the division which I have already given, but even in our own profession we have a still further dividing up of the duties that belong to us. We have the oculist and the aurist, the laryngoscopist and the gynecologist and others. It is certainly true that one who devotes his attention to the cultivation of a particular branch of our profession, is, other things being equal, more competent than one who has not thus given his special attention to the cultivation of the particular part. But it is equally true that one

who attempts to differentiate before he has reached a certain stage of perfection in general professional attainments, must fail to attain the success he desires. Therefore, I beg you wait until you have acquired a very thorough knowledge of the general profession before you begin the process of differentiation that may make you an oculist, an aurist, a laryngoscopist, a gynæcologist, for so sure as the attempt is made without this proper foundation, the differentiation must result in your degeneration into quackery, or your utter failure in the practice of your specialty.

I will not, at this last hour, advise you as to the means of meeting the many responsibilities that lie thickly along the pathway of a physician's life. I will only call your attention to one or two points, without a consideration of which it seems to me impossible that you can approach to anything like a perfect discharge of the fearful responsibility that you have taken upon yourselves, in assuming the practice of our profession. Is it possible to conceive of one more degraded than a physician assuming the responsibility of the health, of the life and the happiness of his patrons, who is not honest? Be honest with yourselves; be honest with your patrons; be honest with God.

If the fearful responsibility to which I have already called your attention, rests upon the physician, how important it is that we should be ever ready to meet it! How gross a piece of folly it would be that he should put himself in a position where he can not possibly do, at all times, the very best that may be done for those who may be left in his charge.

I have heard it said until I am sick of the saying, and you will hear it said again and again until you are nauseated to a degree equal to that which I feel, "That is an excellent physician. I am sorry he drinks."

Is it possible that a man who puts himself in a position to be unfit to discharge the highest duties which man is called upon to discharge should so debase himself as to become intoxicated? Is it true that any man who ever becomes intoxicated is a good physician? It is utterly impossible that he should be. He is deserving the contempt and the scorn rather than the patronage of those who are about him.

You young gentlemen perhaps anticipate that I may say one word that may be an index, a guide to success. I can give you an index in little more than a word. That you may be successful, it is only necessary that you so fit yourselves by the cultivation of reason, by the storing of your minds, by the education of your nervous centres, that you will merit success in your profession. Nothing is surer than success to any individual who may merit it.

In behalf of the Faculty of the St. Louis Medical College I bid you God speed.

PRESENTATION OF A CADUCEUS TO DR. HODGEN.

Dr. Stevens said: It is made my pleasing duty to pass to you this caduceus—the magic wand of Mercury. The wand with the serpents entwined, according to the story in ancient mythology, was given to Mercury by Apollo. The serpent symbol, from time immemorial, whether in the hand of Apollo, or on the staff of Æsculapius, or drinking from the cup of Hygeia, or coiled upon the wand of Mercury, or as in modern times, in the coat of arms of savans, has always been regarded as an emblem of wisdom, of health, life and power, and particularly associated with the art of healing. The donor of this beautiful gift—a member of this class, Dr. Calvin M. Case—intends this as a high and delicate compliment to yourself; and it is a compliment I am sure you will not fail to understand and appreciate, and let me add, one which, in my opinion, no one better deserves.

REPLY OF DR. HODGEN.

I know not how well fitted I am to be the recipient of this high compliment. Whether I deserve it much or little has been largely determined by the gentleman who has been called upon to present it.

For more than thirty-five years he has been my friend, and, strange as it may seem, partly through his influence I have followed him, first in the occupancy of the place of Demonstrator of Anatomy in the medical department of the University of the State of Missouri, and afterwards as Professor of Anatomy in the St. Louis Medical College.

For his flattering expressions I am grateful, and to the kindly feeling of the thoughtful donor, I am also grateful, and especially so, since Dr. Case, who bestows this wand, is our professional grandson.

Editorial.

The history of Italian medicine, which appears in the pages of the JOURNAL of March 5, is the commencement of a series of papers on this subject translated from the Italian by a gentleman well known to North American medicine. The pen of Dr. Joseph Workman has often delighted and enlightened the profession both in the productions of his own, and in the translation of others' thoughts and observations.

In a letter to us of last January he says: "It seems to me a pity that our young men of to-day should know so little of their indebtedness to the fathers of anatomical and surgical science, and especially to those of the great schools of Italy. Not very

long ago a young practitioner, fresh from the London Hospital, observed to me that the Italians had never contributed much to our literature. I said little, for as Quintilian said, 'We cannot fill bottles with wine unless we empty them of their contained air.' So is it with man's ignorance; knowledge can enter only as escape is given to ignorance, and pricking their gas bags is a pretty sure way of provoking their dislike. I have seen some instances of this mishap in my long days, and I now hesitate and ask myself *cui bono*? An old English or French proverb says:

'Send a goose to Dover
It will come a goose over.'

We send some goslings over the big pond and they come back big ganders, but they strut very happily."

Dr. Workman's linguistic attainments are not alone confined to the Italian. He has given to the profession many excellent things from the Portuguese, Spanish, French and German. Among the latter may be named the excellent writings of the great Grissinger and Schroder Vander Kolk. Dr. Workman is now President of the Toronto Medical Society, and for many years was Superintendent and Physician of the Toronto Asylum for the Insane, an institution rendered famous throughout the Canadas under his able administration.

The *Chicago Medical Gazette* comes to us laden with good matter. We presume that it has a larger amount of editorial matter than any journal in the West. The opinions contained in these editorials are in the main sound, but our esteemed Lakeside cotemporary is considerably "off" on the subject of lunacy "reform." It makes mistakes in stating that the number of attendants *per capita* in hospitals for the insane is smaller than in general hospitals; that the management of the insane is in violation of the rights of American citizenship, and that asylums ought to have stewards (vide page 26), by which we infer that the *Gazette* does not know that every hospital for the insane has a steward.

We know of no State where the insane are sent to the hospital without a due process of law,—that is, on the certificate of two respectable physicians recognized in law; no State where they are deprived of their rights of *habeas corpus*, and none in which lunatics are regarded as citizens.

Books and Pamphlets Received.

Posture in the Treatment of Intestinal Colic and Ileus; with a consideration of the Pathology of "Spasmodic Colic." Being the Supplement to a paper read before the New York Academy of Medicine, May 1, 1879. By Frank J. Hamilton, M. D.

The Structure and other Characteristics of Colored Blood Corpuscles, By Louis Elsberg, M. D. [New York, G. P. Putnam's Sons, 182 Fifth Ave. 1879.]

The Therapeutics of Gynæcology and Obstetrics, Comprising the Medical, Dietetic, and Hygienic Treatment of Diseases of Women, as set forth by distinguished contemporary specialists. Edited by William B. Atkinson, A. M., M. D., pp 365, 8 vo. [Philadelphia: D. G. Brinton, 115 S. Seventh st., 1880.]

Elements of Chemistry. By Adolphe Wurtz, Translated and Edited, with the Approbation of the Author, from the Fourth French Edition, by Wm. H. Greene, M. D., with one hundred and thirty-two illustrations. pp 687, 16 mo. [Philadelphia: J. B. Lippencott & Co.; London: 16 Southampton street, Covent Garden. 1879.]

Eyesight: Good and Bad. A treatise on the exercise and preservation of Vision. By Robert Brudenell Carter, F. R. C. S., with numerous illustrations. pp 265, 12 mo. [London: Macmillan & Co. 1880.]

Malaria and Its Effects. By J. W. Younge, M. D. [Fort Wayne, Ind., 1880.]

Clinical Notes upon the use of The Galvano-Cantery. By William A. Byrd, M. D., etc., Quincy, Ill. Reprinted from "The Practitioner," January, 1880.

A Manual of Pathological Histology. By V. Cornil and L. Ranvier. Translated, with Notes and Additions, by E. O. Shakespeare, A. M., M. D., and J. Henry Simes, M. D., with three hundred and sixty illustrations on wood, pp 784, 8 vo. [Philadelphia: Henry C. Lea, 1880.]

The Hypodermic Injection of Morphia. Its History, Advantages and Dangers. (Based on the experience of 360 Physicians) By H. H. Kane, M. D., New York, pp 364, 16 mo. [New York, 1880.]

A Manual of Auscultation and Percussion, embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism. By Austin Flint, M. D. Second edition, revised, pp. 240; 12 mo. [Philadelphia: Henry C. Lea, 1880.]

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Original Contributions.

ARTICLE IX.

CONSUMPTION A NERVE DISEASE.* By PROF. J. J. M. ANGEAR,
A. M., M., D., of Fort Madison, Iowa.

Consumption is a malady which has been recognized ever since there has been a medical profession to observe the disease. Its pathology has never satisfied the profession. It has been watched by keen, scrutinizing eyes from the time of Hippocrates to the present. At one time supposed to be a mere local inflammation which could be cured if we could only apply our remedies—as in inflammation of the hand or foot, or by amputation, we could cut off and cast away the offending member or part. Then a disease of the lungs; then a constitutional disease, and now a disease of the nutritive function, with a deposit of crude material in the lung.

My attention has been called to some abnormal conditions in some parts of the nerve centre or nerves, the symptoms following being so much like those of consumptive patients, that I have been compelled to ask the question, may not consumption be a nerve disease? First, by the peculiarity of the sweating, namely, about the head, neck and chest. Sudoriferous glands, like other glands, are more or less under the control of nerve influence.

*Read before the Iowa State Medical Society at Des Moines, January 24, 1880.

How common to see the face of an embarrassed speaker drenched in perspiration!

We have been too ready to dismiss the matter of night sweats simply as evidence of debility. What is more common than to have night sweats, even in the most robust person, after having an ordinary attack of ague or intermittent fever?

If we stimulate the sciatic nerve of a dog, we shall observe sweating of the toes in proportion to the stimulation. Bernard divided the cervical sympathetic nerve in a horse, and the operation was accompanied by copious perspiration on the side of the face and neck; and by galvanizing the divided ends of the nerve the sweating was arrested. This is the sweating peculiar to the consumptive.

I have a patient at present in the hospital of the Penitentiary whose mental condition is not normal, and at times is decidedly insane. The only physical difficulty, except constipation, is the profuse perspiration. He not only wets his personal clothing so that water can be wrung out of them, but the bedclothes are saturated with this abnormal sweating. This is a clear case of sweating from nervous disease.

Insanity is a disease of the brain. The majority of insane persons die of lung troubles—pneumonia, gangrene and consumption. It is noticed that insane consumptives get better of the insanity as the disease of the lungs gets worse, and as the lungs get better the insanity gets worse, thus showing that at least there is an intimate connection between disease of the nervous and respiratory systems.

Alcohol produces nervous diseases. Richardson, in his "Modern Diseases," speaks of alcohol producing consumption and also of having observed thirty-six cases. Here we have a transposition, as it were, consumption taking the place of delirium tremens. Chambers, in his "Renewal of Life," speaks of two cases of consumption following delirium tremens, commencing in delirium tremens and ending in consumption, as if the two were very intimately connected.

In the spring of '63, I had a patient whose great toe was badly crushed by a log rolling upon it. He was rather nervous, and from the first he said it would kill him. His being so nervous, I feared tetanus, but no symptoms of that kind set in, but from some cause the toe did not readily heal. He lost his appetite, became sleepless, wasted in flesh, cough set in and in a few

months he died of consumption. Had tetanus made its appearance, and he had died from that, we should all have agreed that the crushed nerve in the toe was the cause of the tetanus which killed our patient. Then why not say that the crushing of the toe affected some other change in the nervous system, and that produced the consumption? which is the fact, in my opinion.

We all know that exposure in the wet or lying on the damp ground will, at times, produce paralysis, and at times produce consumption. A large proportion of paralytics die of lung disease resembling pneumonia principally.

In the summer of '77, I was called to see a young man who, the summer previous, while shingling a house, was sunstruck. His health failed, but during the winter he improved. As the warm weather came on he grew worse—losing flesh, having a cough, profuse sweating about the head, neck and chest, diarrhœa, etc., or, in other words, he died of consumption, produced by change in the nerve centre—the result of the sunstroke.

Had he been paralyzed after the sunstroke and had died from the effect of the paralysis, we should not have questioned the cause of the paralysis nor of the death. In this case the consumption took the place of the paralysis.

I take it for granted that we all agree that we have nerves, whose office is to direct and govern nutrition, usually designated trophic nerves. Charcot says: "The *skin*, the *muscles*, the *joints*, the *bones*, and the *viscera* may become the seat of various trophic disorders consequent on lesion of the spinal cord and the brain."—Nervous System, p. 50. Again he says: "There is nothing better established in pathology than the existence of trophic troubles consequent on lesions of the nervous centres or of the nerves."—Nervous System, p. 7.

Consumption is universally acknowledged to be a disease of nutrition, and the fact of our having nerves presiding over this function is as universally acknowledged.

All that I claim for this paper is that the trophic centres are primarily disturbed or diseased in consumption, or, in other words, to carry the cause or difficulty back one step farther—to go back to the last case, paralysis of motion or sensation or both might have occurred, and frequently do occur in such cases, but instead of this we had a disturbance of nutrition, or, in other words, we had paralysis of the trophic nerves instead of motion or sensation.

In the first case we might have had, as we frequently do have in similar cases, tetanus—a disease of the motor nerves chiefly—but the nerves of nutrition, the trophic nerves, were mainly implicated, thus producing a train of consequences which we call consumption.

To say that consumption is a disease of the trophic nerves is to say that consumption is a nerve disease, which is all that I have attempted to show in this paper.

In the *Medical Times and Gazette* (London) of January 17th, 1880, which was not received for several days after the above was read, I find an article—"Cases Illustrating the Connection Between Phthisis and Brain Diseases," by Prof. Senator Berlin—from which I make the following extract:

"Man, aged 30; admitted July 31, 1878, with dullness of lung, bronchial breathing; expectoration somewhat putrid. August 5.—Fingers and hand partially paralyzed; right side perspired freely. August 8.—Epileptiform fit, which recurred on the two following days. August 11.—Lower branches of the facial nerve were paralyzed, which extended to the lower extremities in the next two days. August 14.—Symptoms of aphasia appeared; coma set in and he died August 19th; autopsy revealed phthisical lung, and abscess in the left hemisphere.

"Second case similar to the first—paralysis beginning in the right hand extending to the lower branches of the facial nerve, lastly to the leg; man, 29; phthisis and cavities in the left lung.

"Three other German physicians have recorded cases of phthisis with brain disease.

"The possible dependence of cerebral abscess on lung disease, first pointed out in 1858 by Sir W. Gull, has since been insisted on by Biermer R. Meyer and Huguenin; but from 1867, Meyer collected and published eighty-nine cases of all forms of this affection."

The article from which the above is taken contains a great deal that is valuable with reference to localization of brain function.

September 14, 1868, a consumptive patient of mine became paralyzed, and coma set in and lasted two days before death. Am sorry there was no post-mortem.

The above cases show conclusively the intimate connection of lung disease and nerve troubles. My design is to raise the question: Is not the nerve disease the cause and the lung trouble the effect?

ARTICLE X.

HYSTERICAL COUGH. By J. C. MULHALL, M. D., L. R. C. S. I., of St. Louis, Mo.; Clinical Assistant for two years at the Hospital for Diseases of the Throat and Chest, London.

Miss A. D., aged 17, the daughter of an old friend of mine, came to me on June 18, 1879, complaining of a constant cough that had been harrassing her for about one month. She stated that she could assign no cause for the cough, but that about the middle of April she had a cold in her head, which had, however, confined itself to the forehead and nose and had passed away after three days' duration; that on the morning after recovery from this cold, she suddenly began coughing on getting out of bed, and that she, from that day, had not ceased to cough. The cough had not changed its character in the least, had given rise to no great inconvenience, except that it was very annoying to the members of her family, and it was only at the earnest solicitations of her mother, who feared that this was, perhaps, the herald of some serious malady, that she consented to pass under medical supervision.

Her family history was unimportant. Her personal history was as follows: In early childhood she had suffered from convulsions, and later on from a skin disease. At the age of six she had measles, without any sequelæ. She was always a nervous and somewhat willful child, but the closest questioning elicited no history of chorea. She menstruated at the age of fourteen, and has never suffered in any manner whatsoever from disturbances of the genito-urinary tract. She has been subject for the last four or five years to occasional violent headaches, to curious sensations on her skin, to "risings in her throat." She is of emotional temperament, easily excited to tears or laughter, moody and even morose at times, violently gay at others.

Concerning her present history the following facts were furnished me by her mother: Her cough did not at first excite much attention, but the fact soon enforced itself on the minds of the family that Alice (the young lady's Christian name) had "a very queer kind of cough," one of them saying that if she were

lost that it would only be necessary to describe her cough as a means of identification. She did not labor after sympathy; indeed, she always escaped to her bedroom on the advent of visitors, to avoid their wonder. No kind of occupation seemed to arrest it; she was very fond of music, and though she forgot her cough when engaged at her piano, others noticed no difference; one visit to the theatre was sufficient for her, for she was compelled to leave after the first act, since her incessant and strange cough not only attracted many of the audience, but disturbed those engaged on the stage. She tried every expedient as to posture, compression and pre-occupation without avail, except decubitus after thoroughly tiring herself with a long walk; but the recumbent posture without the physical exhaustion was of no avail. The only time it did cease was during sleep, but with her first conscious breath came the cough. From first to last it seemed to herself and mother that it was in every respect exactly alike; it certainly maintained its identity whilst under my treatment.

The cough was of medium pitch, mild intensity, dry and sonorous, short and monotonous, neither rising nor falling in cadence. It seemed to me to be objectless or imitative, and reminded me of the stage cough which the susceptible old maid assumes to attract attention. It was certainly not suggestive of the cry of any animal, but was a cough, pure and simple, accompanied by the usual indicative muscular contractions. Her pulse was 76 and her respirations 20 to the minute. At each fourth inspiration and before the commencement of the fifth, there were three distinct coughs. Without her knowledge, I discovered, with the aid of my watch, that the intervals of rest maintained an astonishing regularity, being either of eleven, twelve or thirteen seconds' duration; and, registering my observations for half an hour, I found the average interval to be twelve seconds. From this it follows that she coughed fifteen times a minute, 900 times an hour, 21,600 times a day; but allowing eight hours for sleep, she actually coughed 14,400 times per day. A quick and deep inspiration would at any time cause cough, but curiously, always with the tertiary rhythm.

Notwithstanding the numerical magnitude of these explosive efforts, her only subjective signs were pains in the chest-walls toward the close of day, with a shorter interval between her usual attacks of headache.

I found her to be of medium height, with a well-formed and well-nourished body, of good color and sparkling eyes, and with no evidences of strumous or syphilitic origin. As I have said before, there were no genito-urinary disturbances; there was no pain on pressure over the ovaries or back, and I could find no nervous cutaneous disturbances, though she had subjective symptoms of anæsthesia, hyperæsthesia, formication, etc., limited, however, to the external surface. On several occasions, most careful examinations of her chest failed to discover any pathological state. Owing to her somewhat shallow inspirations, the vesicular murmur, over the whole chest, was not of the usual intensity, and was sometimes of a jerky and sobbing character. The inspiration preceding the cough expanded the chest more than the others, and the cough produced visible vibration of the chest walls. She was a peculiarly favorable subject for the purposes of laryngoscopy and rhinoscopy, and bore the introduction of the mirror so well that I suspected some anæsthesia of the palate and pharynx; but, on examination with a laryngeal steel sound, it seemed to me that all the parts were of about normal sensibility; if there were any deviation, it was on the side of hyperæsthesia. I could easily see as far as the bifurcation of the trachea, but found nothing beyond a superficial congestion of the trachea, a condition to be expected after so much coughing. The tension, approximation and abduction of the vocal cords were normal; nor did they exhibit any twitching or fluttering movements. I induced a young lady friend, whose larynx was normal, to imitate the cough of my patient, and examined her larynx during the cough, but found no difference in the phenomena preceding and accompanying the cough efforts in her case and that of my patient.

Her uvula was not relaxed, the papillæ at the back of the tongue not enlarged, the naso-pharynx normal—in a word, neither by touch or sight, could I find any derangement of her respiratory tract. My friend, Dr. W. M. Whistler, the accomplished laryngologist, kindly examined her, also, and agreed with my observations.

Remembering the fruitless methods of treatment in the experience of others, to whom I shall refer farther on, I determined to be original, assuming hyperæsthesia, though I could find none. I ordered her to inhale a spray of iced water and belladonna, to apply iced clothes about the neck, to keep an icebag

on her head, and in addition I sprayed with ether from the sixth cervical vertebra to the occiput. She also took 10 grains of bromide of potassium with 10 drops of tincture belladonna three times daily. This benumbing of the central and peripheral respiratory nerve tracts, though faithfully pursued for a fortnight, was without any beneficial effect. I bethought me then of a case mentioned in Graves' "Clinical Memoirs," where every known remedy had been tried in vain for a constant cough that afflicted a young lady, which was afterwards cured by an old woman, who gave the patient a remedy which expelled a tapeworm. But remedies administered for the purpose, convinced me that my patient was not suffering from any vermicular disease.

For the next two weeks, I applied the constant current, extra and intra-laryngeal, gave her at the same time minute doses of opium, a capsicum gargle and an inhalation of the vapor of oil of sweet flag. But this stimulating plan, like the benumbing, was without result. I then tried the effects of physical exhaustion, ordering her to walk every day until quite tired out. At the end of three weeks, I saw her again, and found that she had reached ten miles a day. She related that on her return home, after these walks, that on lying down her cough would cease completely for an hour or longer, but that as soon as she was well rested that it would commence again. About this time she received an invitation to accompany some friends, for a sojourn at Dieppe, in the north of France. I advised her by all means to go, and she left London during the last week in August. I shortly afterwards received a letter from her, in which she stated that she was completely cured; that on the morning after her arrival at Dieppe, she arose from bed, did not cough once, and had passed two days without coughing. She returned to London at the end of September, but, up to this date, I have not heard that she had any cough whatsoever since the day when it so suddenly ceased at Dieppe.

There can be no doubt that this remarkable case was an example of that group of symptoms which has been called "hysterical cough." Literature does not afford many descriptions of the disease, accurate enough to correspond with my case, though there are many loose references to curious laryngeal phenomena in hysterical women.

Sydenham, in his epistolary address to William Cole, speak-

ing of hysteria, says, "that it sometimes affects the lungs, causing an almost perpetual dry cough, and though it does not shake the chest so violently as other coughs, yet the fits are more frequent; that this species of cough is very rare and chiefly affects women of a phlegmatic constitution."

In the first volume of the *Medical Times and Gazette* (London) for 1862, page 109, Dr. Peacock describes a typical case which was treated by inhalations of chloroform and the internal administration of gradually increased doses of chloride of zinc, without avail; and in the same journal for 1863, volume 2, page 116, Dr. Harley describes a case which lasted but eight days, during which, except during sleep, and on assuming the recumbent attitude, the patient coughed *seventy times a minute*. He does not state whether the cough ceased suddenly or not, but states that it was cured (?) by a mixture containing valerianate of zinc, camphor and assafoetida, with cold douches to the back, and dry friction night and morning.

The only resumé and complete description of the disease that I have been able to find is by Professor Lasèque, of Paris,* who says:

"Hysterical cough differs from the convulsive cough of children, as it is not accompanied by violent spasms, and therefore not followed by congestion, threats of asphyxia, and the divers accidents which result from thoracic convulsions. During the attack, so frequent are the concussions of cough, that it might almost be considered constant. If the cough stop, it is not from any cause which would cause one to stop, that proceeded from a chest affection. The intervals of repose return with remarkable regularity; like chorea, the cough stops absolutely during sleep; a diagnostic feature.

"There is a monotonous rhythm about the cough, such as one, two or three coughs after each inspiration, and the rhythm being once established, continues. There is no sputa, or occasionally, a very little; no dyspnoea during the interval; the respirations are somewhat less deep than usual, deep inspirations being avoided on account of their cough-producing effect; there are no physical signs except those arising from repressing full inspirations; the vesicular murmur less intense, at some places indistinct, hardly heard at one moment and shortly afterwards

*De la toux hysterique. Lasèque, Archives Générales de Médecine. Mai, 1854; p. 513.

re-appearing. The cough may be simple or compound. In its simple state it is like that which results from the inhalation of some irritating gas, such as chlorine; it is dry, sonorous, and continues indefinitely without modification of timbre; in its compound state it may be associated with hoarseness, aphonia, or vomiting. In some cases it takes a particular timbre, like that of a bird, for instance; it may be harsh, metallic, shrill, etc., etc. This is exceptional, and should not be confounded with the vocal troubles of hysteria, such as mewling, barking, etc.

"The cough not only preserves its identity, but exhibits no tendency to transform itself into other forms of hysteria; there are very few examples of this. It is a chronic affection, lasting months and even years and is uninfluenced by other pathological or physiological changes going on; it is unaffected by medication, its long continuance giving one a chance to try everything. Change of place has rapidly affected several cures. It may cease suddenly or slowly; it affects, exclusively, women and has never been noticed beyond the age of twenty-five. In some cases it was the first hysterical outbreak; in others, not; it does not belong to one more than another category of symptoms. It does not figure among the hysterical antecedents which have been observed where phthisis has supervened, and is never the insidious approach of that malady. Notwithstanding its persistence, it seldom has evil effects, except those of weakening, loss of appetite, impairment of the digestive functions, pallor, loss of flesh, pains in the thoracic walls, and it has never had a fatal termination. The clinical history of cases is remarkably alike."

M. Lasague then gives the details of a number of cases. He also quotes one from Elliotson, where there was one cough with each expiration; one from Davies, in the *London Medical Gazette* of 1834, who says he has seen thirteen parallel cases, and who recommends change of air and scene as the only remedies; one from Trousseau, which continued thirteen months; one from Whytt, in a child eight years old, in which the recumbent position at once stopped the cough, which lasted a year, during which all kinds of medication were tried, but which suddenly stopped of itself; one from Lubert, in which the cough occurred every half minute, but was at once stopped by the recumbent attitude, and also when the patient played the guitar; at the opera she did not cough at all during the singing, but attracted attention by her coughing during the dialogue; after lasting six-

teen months, unaffected by medication, it suddenly ceased one morning of itself; did not return for six months, when it occurred again and lasted six months and again suddenly disappeared; one from Chonel, in which the cough began exactly at 2 P. M. and lasted until 7 P. M.; one from Dr. Synclair, which lasted four days and came on after taking 50 drops of laudanum; and one from Tardieu, which was cured by belladonna pushed far enough to produce convulsions.

Though there are no laryngoscopic observations in these cases, their history would prevent their being confounded with other vocal troubles of hysteria or with "chorea laryngealis," so called. Their history corresponds so well with that of my case, in which I made numerous and complete laryngoscopic investigations, that it may be safely assumed that they also had no laryngeal derangements. It would be idle to theorize concerning these cases. We may believe with Jolly that "we have to do with a diseased reflex action, whose reflection takes place in the brain and whose cause is to be conjecturally sought for in a condition of exalted irritability of the sensory portion of that organ"; and meditate on the law of reflex action, according to which irritation of centripetal fibres in the central organs may be transferred to centrifugal fibres—motor, vaso-motor and secretory nerves—and exhibit their special action at the periphery.

No. 203½ North 8th Street.

ARTICLE XI.

THE UTERUS AND THE CHEST.*—DIAGNOSIS—CASES SUPPOSED TO BE CONSUMPTION, BUT PROVED TO BE UTERINE. THE USE OF THE MICROSCOPE. By EPHRAIM CUTTER, M. D., of Boston.

It sometimes happens that specialists in lung diseases are consulted by women with the idea that they are subjects of consumption. A careful examination excludes the dreaded disease and unearths affections of the uterus, that were unsuspected or ignored, but which are a sufficient cause of the symptoms that excited alarm. It is our intention to present a few of such examples. The upshot is, that specialists must never forget the other divisions of the great army of medicine, but that the gynæcologist must sometimes treat laryngological cases (see *St. Louis Medical and Surgical Journal*, Nov., 1879) and on the other hand, also the chest expert must relegate cases to the gynæcologist before they are cured. So oculists learn from laryngologists. For example, some ten years ago a young woman attended the eye clinic at the Boston city hospital for ulceration of the cornea and conjunctiva. Lotions and medicines were given and taken. No relief. One day a laryngologist examined her throat on account of some symptoms of dysphagia and found two large digit-like tumors hanging down behind the soft palate; their removal by an *eczazeur* was followed by an immediate cure of the ocular affection.

Lately our associate, Dr. Warner, has called the attention of gynæcologists to the influence of hepatic disease in uterine cases.

I shall then offer no apology for alluding to the following cases to sustain the position that our views must not be too much narrowed by our speciality.

CASE I.—Mrs P., a married lady of middle age, with several children, was troubled by chronic cough, with expectoration, pains in her lungs, dyspnoea, weakness of chest and taking cold easily. Her previous physicians had regarded her case as tuber-

*Read before the Gynæcological Society of Boston.

culous and she had, at their advice, spent several winters in Florida with marked benefit. At the time the writer saw her, she had just completed her arrangements and was on the eve of removing her family from the North to Florida again. Her throat, chest, uterus and blood were carefully examined. The throat was inflamed somewhat. The chest was found to be normal save perhaps a feebleness of the respiration. There were no râles, no dullness, no wavy or jerky respiration. Heart sounds disturbed, but normal in pronunciation and rhythm. The uterus was irritable and anteverted. The blood was entirely free from spores, spore collects, fibrin or mycelial filaments. The red corpuscles were segregated, distinct and well rounded out. On this examination the absence of tubercle was declared. The uterine affection was attended to. Not much objection was made to her going away—not that in my opinion it was necessary, but on the general ground that winter migration to the South from the North is or ought to be a normal condition of modern civilization and also because a mild winter is of great benefit to persons of weak lungs and liable to take cold on slight exposures. She went, wearing an anteversion pessary.

On her return, she took up another municipal residence. She did not go South again to my knowledge. Health restored.

CASE II.—Mrs F., 1877, June 3d, mother of two children grown up; has been an invalid for sixteen years. Most of this time she has been confined to her house, as she was unable to walk about much and suffered a great deal from pain and tenderness in the left chest especially; dyspnea, cough, copious expectoration, always dying, never dead; nervous system shaken and shattered to a great degree. The question was raised in relation to the primal cause of her illness. The account was a long and a very diffuse one. But took the lung trouble, as the central pivot around which all her other symptoms swung. Her physical signs in brief were as follows: *Chest*—somewhat flattened and emaciated. Tender on palpation. Percussion, no abnormal dullness nor resonance anywhere. The respiratory murmur was heard all over the lungs, full, free, normal with only an occasional râle of a coarse character. *Heart*—Area of dullness on percussion, pronunciation and rhythm, normal. *Abdomen*—flat, no tumor felt, no tenderness, no tympanitis, in fact no abnormal sign on palpation, percussion or inspection. *Vagina*—Short-

ened longitudinally, enlarged transversely. *Uterus*—Strongly anteverted and anteфлекed; depth of cavity normal; the uterus was without much difficulty restored to its normal site and straightness, but immediately relapsed after the sound was withdrawn. No perimetritis or extra or intrauterine disease, vesical rectal or pelvic, were found.

Blood free from spores, spore collects, fibrin filaments or mycelial filaments. The red corpuscles were pale, but arranged themselves into rouleaux, distinct, clear, clean cut outlines. White corpuscles not enlarged, normal in proportion.

DIAGNOSIS.—No tubercular, but uterine disease. This idea was very demoralizing to the patient as it unsettled the status of the case as previously declared by many physicians. None of them had ever examined the uterus as far as I could find out, but the claims of this organ had been entirely ignored. It seems to me that if ignoring a thing would cure, that sixteen years had been long enough to do so in this case. At any rate it was time enough to have developed whatever affection there might have been in the lungs, so that if it had been consumption, very marked physical signs would have been present. But they were not, hence I explain the chest pains as peripheral and sympathetic, as is so often found in old uterine cases, and as was so graphically pointed out by the great gynæcologist and obstetrician, Hodge, of Philadelphia.

The question seriously arose in my mind, whether after so long a time it would pay to treat the uterine disease, which on inquiry proved to have been indicated sixteen years previously, by local pains, distress and bearing down in the pelvic region; but so much irritation followed the introduction of the sound that the patient decided her case to be thoracic, and going to Florida for the winter. She has returned and at last accounts was no better.

Oct., 1879—I have no disposition to fulminate wrath against my fellows, who have ignored the uterus in this case, but it does seem strange, that in these days of brilliant gynæcology, that any one can presume to examine a patient and overlook so important an organ as the womb. I must also say, that my indignation has been roused by coming in contact with cases that had called their physician's attention to the fact, that they believed themselves suffering with womb affections, and yet those physicians

never paid any attention to the leadings of the patient, though I found them suffering with positive uterine lesions which in the time of their first appearing I had every reason to believe might have been cured. Oh, that we might have such a moral influence pervading the profession, that instances like those mentioned would relegate these neglectors to the gynæcological societies and Journals for instruction till they would know enough to recognize and treat cases properly and not to treat them by ignoring; we do not wish to intimate that all uterine cases can be cured, but we do say that it is cruel, if not criminal, for any member of our noble profession to neglect to explore and see if they cannot be cured; this is much more important than it seems.

CASE III.—Mrs C., mother of eight children; always had an occasional cough, dry and probably of a catarrhal nature. In 1875 she complained of her chest. Extra cough and expectoration, pain over the precordium, paroxysms of dyspnoea and palpitation of the heart, loss of flesh and strength. Her grandmother (maternal) died of consumption, and as there were no signs of lung disease, the question was raised, whether she was not in the pre-tubercular state. An examination of the blood showed no evidence of tuberculosis in that fluid, as it was clear and clean, red corpuscles distinct and not sticky—no fibrin or mycelial filaments, no spores, no spore collects, were discovered. The uterus was found retroverted, os ulcerated and everted and fissured. On the negative evidence, she was pronounced non-tuberculous. On the positive, she was pronounced a uterine case. The subsequent history has confirmed these diagnoses to be correct.

CASE IV.—Miss P., music teacher, 21 years of age; in 1877 complained of a fear of being in consumption. On inquiry, I found that she felt pain and numbness in her limbs, of languor and weariness and especially of a very irritable, dry and harassing cough. Seven years previously, she fell through a scuttle in a warehouse in Baltimore, nine or ten feet down one story, fractured her left arm, and received internal injuries, the nature of which she was unaware. Her mother died of consumption, so she feared the same complaint and her chief anxiety was to know if she was a subject of the same disease. Physical examination showed the throat to be reddened generally, irritable and

sore; the chest to be normal, the blood to be healthy, and the uterus irritable, engorged and anteverted.

She did not yield well to treatment addressed to the womb and passed out of my observation. It is possible that there might have been an additional neurotic lesion that I could not discover on a careful examination.

CASE V.—Miss F., had been pronounced as probably tuberculous by several physicians, because she had considerable pain in her chest combined with such distress, that she was incapacitated from performing the duties of an ordinary house servant. Under this impression, the writer was called on to examine the case, but found no disease of the lungs or blood. It was a uterine case, and was cured by local treatment.

CASE VI.—In May 1875, Mrs M., was found in bed confined with a cough, emaciation, night sweats, severe pain throughout left chest and an excessively irritable nervous system. It was a case of chronic invalidism turned over by her physician as probably tuberculous, with a fatal termination at no distant period, as her father died of consumption. The outlook was decidedly bad, still there was an absence of any marked physical signs of abnormal changes in the lung substance. On examining the blood by the Salisbury method, the red corpuscles were not enlarged nor too numerous. There were no fibrin filaments discernible—no vegetative filaments, spores or spore collects. The red corpuscles were pale, thin and flat, not aggregated.

This negative evidence, in my mind settled the diagnosis of tubercle. It was decided that at least there was no tuberculosis, whatever else might be the trouble. But an examination of the vagina showed that organ shortened in its long diameter, and widened in its normal lateral diameter. The uterus was completely retroverted and somewhat adherent behind so that it was with difficulty elevated. It was sore, os enlarged, not ulcerated. She had had two children. Perineum completely ruptured. Did badly and had to be relieved by an operation sometime subsequent to the birth of the child. A month's faithful treatment with animal food, quinine and acid baths was followed by a return of the red blood corpuscles to the normal standard of color, plumpness and clean cut lines. Thus the case proved to be one of general debility caused mainly by the severe labors, and the

uterine displacement. She was naturally a frail person, and it is probable that the prediction of her physician alluded to would have been realized if she had continued much longer in the state he left her in.

Subsequently she gained a degree of good health that was surprising and gratifying. Driving out, walking to church, house-keeping, etc. But sad to say, she contracted measles from her son and died from its effects.

CASE VII.—Miss R., æt. 16, was supposed to be going into consumption. Her paternal grandfather had died of it. She had some cough, not much expectoration, was very weak, pale and bad looking about the eyes. There was inability to walk about or take exercise. Disturbance of the nervous system, dysmenorrhœa, scanty menses, numbness of legs and thighs, palpitation of the heart, difficult breathing sometime, pains in the hypogastrium, leucorrhœa. On examination, no signs of disease were found about the chest or lungs or heart. The microscopic inspection of the blood revealed no evidence of tubercle. The uterus was anteverted and anteflexed. Replacable. Normal size, no ulceration or thickening, no extrauterine or abdominal trouble. This person wore a Cutter stem pessary for one year with benefit.

CASE VIII.—*Supposed consumption of the blood.* Mrs B., æt. about 24 years, had two children, older child four years old. Had been continuously sick since last March. A small, pale, thin weak woman. Says she has lost flesh and color; cough slight, pain in the top of the head, over both ovaries, palpitation of the heart, gastric distress, sudden accesses of the dyspnœa and fainting; food resting heavily on her stomach, amenorrhœa, entire inability to walk about. Her disease had been diagnosticated nervous dyspepsia and consumption of the blood; if any one can tell what this complaint is, practically it ranks with tubercular disease, particularly as now it has been shown that consumption is a blood disease. She had been bedridden for one month. Pulse 144, tense, cordy, resisting compression; lungs normal; chest emaciated; heart's impulse very strong and shaking, felt over a large area beyond vertical line through the left nipple and the median line. Area of precordial dullness on percussion well marked, and at least four inches in diameter. First sound distinct, second sound confused and heard over a larger area than

the above area of dullness. Fremitus felt over the heart's apex.

The inspection of the blood showed it to be normal, thus at once doing away with the diagnosis of my predecessors, even if there should be a dispute as to what was meant. The uterus was strongly anteverted, mobile, sore; patulous, normal depth. No ulceration. Diagnosis, cardiac hypertrophy and uterine disease. Before treatment could be carried out, she became insane and was remanded to an insane asylum, where she got away from the kind persecutions of an over anxious worrying mother-in-law, and after several months treatment was discharged cured.

REMARKS.—The use of the microscope in the diagnosis of consumption is new. It originated with Dr. James H. Salisbury of Cleveland, Ohio. I have elsewhere given an account of conducting the examination (primer of the clinical microscope, Charles Stodder of Boston) it is alluded to by Salisbury himself, in the *Va. Med. Monthly*, Richmond, Sept., 1879. A full work on the subject is ready to be published by subscription. The theory based on over one thousand cases, and twenty years of experience, is briefly, that consumption is a condition or state induced by the presence of a yeast in the blood. It is found one year before the organic pulmonary disease (pre-tubercular state) the spores and mycelial filaments of the yeast are found in the blood. I have photographed them. The red corpuscles are sticky and mass together, the white corpuscles are enlarged by the entophytal growth of the yeast. They mass together. The fibrin filaments are marked and strong numerous masses of aggregated spores are found. The white corpuscles form nuclei for clots or thrombi which become emboli when caught in a blood vessel. These thrombi may be seen in the blood, as minute microscopical aggregations of filaments and blood corpuscles. When these become emboli, they are the cause of what we call tubercle, by interfering with nutrition, by stopping the flow of the blood in the capillaries. Tubercle then is an accident or rather a secondary result from the capillary interference; the Salisbury plan then makes consumption to be;

First. A constitutional blood disease characterized by certain morphological elements in the blood.

Second. It exists one year before organic disease.

Third. The presence and progress of the constitutional disease can be made out by blood inspection.

Fourth. The treatment is based on the idea of starving out the yeast by excluding yeast food from the aliment of the patient (see *Va. Med. Monthly*, Sept., 1879.).

The basis on which this theory rests is: 1st, the synthesis of the disease by Dr. Salisbury's feeding 200 hogs on food overcharged with yeast, 200 dying of consumption in sixty days and 110 post-mortem examinations verifying the disease. I have read the records of the 110 post-mortems. 2d, the raising of bread by the diarrhoeal dejections of third stage consumptives; this is verified by me. 3d, the artificial induction of consumption of the bowels in from fifteen to thirty days in the human subject. 4th, the removal of the form elements of the yeast from the blood by treatment and the amelioration of the symptoms of consumption, *pari passu*. 5th, the diagnosis from syphilis, rheumatism and other diseases which present morphological blood changes.

This resumé is given in justification and explanation of the references in the text.

Finally I would say that my practical experiences in this mode of diagnosis make me thoroughly in earnest, that others shall enjoy the same privileges that I have in the detection and treatment of this scourge of the human race. This impression is deepened by the conviction, that such diagnosis as reported certainly shows the great importance and excellence of gynæcological knowledge on the part of those whose attention is professedly confined to diseases of the chest.

Clinical Reports from Private Practice.

"FREAKS OF NATURE." By A. T. STEELE, M.D., of Ashmore, Ill.

MR. EDITOR:—I have finished reading, in your estimable JOURNAL, the discussion at the St. Louis Medical Society of the report of Dr. W. Dickinson on the "Freaks of Nature," that induced me to report a case that occurred in my practice this year. March 10, 1879, was called to attend Mrs. McG.; primipara; healthy, stout woman, aged 18. Labor began some 12 hours before I reached the case, at 10 A.M.; found that everything had been put in order before I reached the house; bed prepared; warm water, soap, napkins in readiness for me; pains regular and expulsive in character. At 11:30 A.M. made my first examination; os dilated and dilatable with bag of waters protruding; did not rupture them then, a thing I do not usually do, as I allow them to remain intact to act as a dilator. In about half an hour I let her get on her feet and remain there half an hour, when she went to bed again, and just while getting in bed she had a severe and prolonged pain when the membranes gave away. I was sitting on the side of the bed and the gush of water wet my side and leg through all my clothing, and the patient's hips were soon bathed in a pool of water. I now passed my finger into the vagina to find what there was there, if anything. I came in contact with what I made out as a shoulder. I began to wonder what I had to contend with, when another pain relieved my mind by forcing through the vulva and into my hand—a child! Not a move nor a sound was to be heard beneath the bed clothes. The mother asked, "Is it alive?" I answered, "No." I cut the cord, removed the child, wrapped it up, handed it away to the nurse and turned my attention to removing the placenta. I used Crede's method, and in from three to five minutes removed the placenta. While doing this I was left alone with my charge. I now went to see what I had found, and when I unfolded the package of clothes I found what am not sure I can picture with my pen—a well-formed body and lower and upper extremities. But not so with the head. The spinal column from just between the scapula and cervical vertebra was half gone and the cord looked like the posterior half was shaved off, and this condition extended through the whole cervical vertebra up to the occipital bone, and through that bone to where the posterior fontanel should have been, and at this point the top of the cranium was as clean gone as though it had been done with a butcher's cleaver, shaving the top off entirely, leaving a small rim of bone just above the eyes. The ears protruded beyond the cut edge of the

skull and stuck straight up like a small pig's ears, which they very much resembled. The face was drawn out so much like a small pig's face that I can only compare it with that. The lips were hard like cartilage. There were no thumbs on either hand. The muscles of the neck held the lower jaw down close to sternum. There were small tufts of hair just above each ear three or four inches long. The eyes were large and the eyelids did not half cover the ball, which gave the whole thing a hideous look.

I will now give what was reported to me as the cause of this remarkable deformity, viz: When this woman was three months advanced (but I think not more than two and a half), she says, her husband wanted to kill some hogs and could get no help. She went and helped him. After they were killed and hung up, she went and laid down and went to sleep. Her husband did not awaken her until he had taken a large knife and cut the heads almost off, and got one of the hogs on his shoulder and went into the house with it. This awoke her out of a sound sleep, and the sight of that hog's head hanging there frightened her almost into convulsions. She told me that she did not dare to go out of the house after night, and it made her shudder to think of what she saw that night, and she is firm in the belief that that was the cause of the deformity of the child. She is pregnant now, and I am engaged to attend her, and I understand from her friends that she thinks she will have just such luck again. If I attend her and such is the case, I will give your readers the benefit of the case.

“ACRODYNIA.” By W. J. COLE, M.D., of Blairsville, Ind.

The following cases occurred in my practice during the last three years:

CASE I.—Mr. J. D., æt. 24; German; farmer; family history good. Had enjoyed good health, except a previous attack of the present trouble two years ago. Consulted me in December, 1877. He was suffering with the most intense, burning pain in the hands. Pupils normal; no symptoms of cerebral nor spinal disease. The pain was so severe he would spring from his seat, walk the floor, striking his hands on his thighs with considerable force, at the same time saying, “they felt just like they were in the fire.” I made an attempt at a diagnosis, and pronounced it “Acrodynia,” as being the most appropriate name. I called it by this name because I had read of an epidemic of something of this sort which occurred in Paris in 1818. I administered

½ gr. morphia sulph., and applied tr. opii to the parts. After waiting half an hour without relief, I again applied tr. opii, and covered the hands with a tobacco stupe, as hot as he could stand it. This relieved the pain. Gave him full dose of magnesia sulph. He started home at 8 A.M. armed with three ½ gr. morphia powders, to be used if necessary. Next day at noon he returned; stated he had suffered at irregular intervals since 2 o'clock that morning. Continued the anodyne; ordered quinia gr. iij. every two hours. I saw my patient no more for about a week, when he informed me that the pain continued to decrease, and the intervals between the paroxysms became longer, until, on the evening of the third day, it ceased entirely.

CASE II.—Mrs. W., æt. 28; German; wife of a miller. Symptoms and diagnosis same as above case. I applied sulph. ether to the hand; ordered it continued every half hour; also full dose magnesia sulph. at bed time. Reported next day; no better. Ordered 10 per cent. solution of carbolic acid, to be applied to the hands every two hours. Reported next day; pain much less. Observed on the back of the right hand an erysipelatous inflammation, and treated her for that disease.

CASE III.—Mr. E. D., æt. 31; teamster; German; family history good; brother to Mrs. W. (Case II). Symptoms and diagnosis same as the above two cases, only much milder. Persuaded him to try and stand it without treatment. This he reluctantly agreed to do, and the case progressed very much like the first, and ended in recovery in the same length of time.

I have simply stated facts and shall offer no comment. It might, however, be proper to state that I consulted neighboring physicians, without receiving any light on the subject; and I found but one that had ever had a similar case, and that one occurred within three miles of Blairsville.

Proceedings of Medical Societies.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

RESEARCHES ON THE ANATOMY OF THE VOCAL CORDS. By CARL SEILER, M. D., of Philadelphia, Pa.

The diversity of opinion which exists in works on general physiology and anatomy, and even in special treatises on the larynx, in regard to the anatomy and morphology of the vocal cords, led me to make some investigations with the view to arrive at a definite conclusion which might be satisfactory at least to myself. But the task was of greater difficulty than I had anticipated, for minute dissections alone were found to be insufficient, and microscopic examination of the various structures, when separated from their connections, was equally unsatisfactory. A few months ago, however, after having completed my mechanical microtome¹, I was enabled by its use to make very thin sections across the entire adult larynx in various directions and positions of its parts. By studying such sections after staining them both with carmine and with indigo, which latter dye is invaluable for differentiating fibrous tissue from the other elements, I found that I could satisfactorily demonstrate the erroneousness of the statements of some anatomists and verify those of others in regard to the more minute anatomy of the vocal cords, as well as of other parts of the human larynx. The conclusions at which I have arrived by these investigations are for the most part substantiated by the physiological action of the cords as seen in the laryngeal mirror, and they explain some of the phenomena of vocalization which, up to the present time, had been but unsatisfactorily accounted for, at least to my own mind.

The "inferior" or "true vocal cords," or better still, the vocal cords—for there is no doubt that they alone are the phonal factors of the larynx—are two prismatic projections of the lining of the laryngeal cavity stretching from before backward, from the angle formed by the two wings of the thyroid cartilage to

1. For a description of this instrument see *New York Quarterly Microscopical Journal*, Vol. I, No. 2.

the vocal process and base of each arytenoid cartilage respectively. They are covered by mucous membrane, appearing as mere folds or duplicatures of this membrane, and in fact are so described by some authors.

Examining a transverse section of the vocal cord, we find that the base of the triangle is directed toward the inner surface of the wings of the thyroid cartilage, while the apex constitutes the free edge of the cord. The upper face of the prism corresponding to the upper surface of the cord is concave, at least in the larynx of the dead subject, and a similar concavity I have sometimes noticed in the living subject when the cords were separated and relaxed in inspiration. The lower face, corresponding to the lower surface of the cord, is irregular in its outline, presenting a notch immediately beyond its edge. This notch corresponds to a groove running parallel with and below the free edge of the cord through its whole length². The mucous membrane covering the cord, as seen under the microscope in such a transverse section, is covered with ciliated columnar epithelium on the upper as well as on the lower surface. On the upper surface these epithelial cells abruptly change in character from the columnar type to squamous or pavement type, at a point about one-third of its breadth from the free edge and on the lower surface of the cord, at the lower edge of the groove or notch, so that this groove as well as the free edge of the cord are devoid of ciliated epithelium, and are covered with pavement epithelium.

Within the areolar tissue below the epithelial covering racemose glands are found to be quite numerous, with their ducts opening between the columnar epithelial cells, both on the upper and lower surfaces of the cord, but none are found in that portion of the cord which is covered by pavement epithelium. These glands were first described by M. Coyne, whose illustrative plates, however, represent their ducts as opening too near the free edge of the cord³.

In the mucous membrane covering the edge of the cord, instead of glands, we find papillæ similar to those in the tongue. These papillæ contain loops of vessels which can be readily in-

2. Der Kehl Kopf des Menschen, H. v. Luschka, p. 102, Tübingen 1871.

3. Recherche sur l'anatomie normale de la membrane muqueuse du larynx. *Arch de Physiologie Normale et Pathologique*, 1874.

jected in a child or fœtus, and thus be studied in a transverse section of the cord. These are mentioned by Luschka in his work on the anatomy of the larynx.

The body of the cord is made up principally of the thyro-arytenoid muscle and of a band of white fibrous tissue containing yellow elastic fibres, which is situated beyond the muscle. This band is likewise prismatic, and constitutes the free edge of the vocal cord. The base of this prismatic band is parallel with the upper surface of the cord, while its apex slopes downward to a considerable distance. The thyro-arytenoid is intimately connected with this fibrous band, prolongations from which extend between the bundles of muscular fibre.

The mucous membrane covering the cord is loosely attached by areolar tissue to the subjacent structures, and is easily moved and thrown into folds on the dead subject. In order to study the full significance of this fibrous band, however, we must examine a longitudinal section carried parallel with and a little below the upper surface of the vocal cord in its full length, *which can only be done by including the base and vocal process of the arytenoid cartilage and the anterior angle of the thyroid cartilage in the section.*

In such a section stained with carmine and indigo we can, even with the unaided eye, see a narrow strip running parallel with the edge of the vocal cord from a little protuberance at the anterior angle of the thyroid cartilage to the extreme end of the vocal process of the arytenoid cartilage. This band, which may be distinguished from the adjacent muscle by its difference in color, as well as by its difference in density (the existence of which is denied even by some distinguished anatomists), at its widest part, that is near the surface, constitutes about one-sixth of the width of the whole cord in the larynx, while it is considerably wider in the fœtal larynx.

If examined under a microscope, it will be seen that the fibres of this band run parallel with each other, and are continuous posteriorly with the perichondrium of the arytenoid cartilage, anteriorly with the inner perichondrium of the thyroid cartilage, which connection can also be more easily traced in the fœtal larynx. The vocal process of the arytenoid cartilage is lost in this band.

The fibres of the thyro-arytenoid muscle run parallel with this fibrous band at its anterior part, and are inserted first at a

point where the true cartilaginous structure of the vocal process commences, and from thence are inserted all along the outer face of this process and in the edge of the base of the arytenoid cartilage. The anterior insertion of these muscular fibres takes place at the anterior third of the inner surface of the thyroid cartilage from the level of the cords downward to the upper margin of the cricoid cartilage, thus presenting a fan-shaped insertion.

One of the most striking features in a longitudinal section of the vocal cord, and at the same time one of the greatest importance as regards physiological action, is the vocal process of the arytenoid cartilage. In this process we detect the material difference which exists between the vocal cord in the male and in the female adult; and its minute structure helps to explain the special phenomena of vocalization in the sexes. This cartilaginous projection of the base of the arytenoid cartilage is prismatic and extending forward into the vocal cord, as has already been remarked is continuous with its fibrous band. It is composed of hyaline cartilage in its greater part and it is only in the extremity that we observe a gradual change from hyaline to reticulated cartilage. The whole extremity of the vocal process consists of this latter type of cartilage, which is very flexible and soft, thus forming an intermediate tissue, at least as far as regards consistence and flexibility, between the hyaline cartilage of the base of the vocal process and the fibrous band of the vocal cord.

In the male larynx this transition from hyaline to reticulated cartilage is very gradual, and the fibrous band can be recognized in the anterior third of the cord. In the female larynx the change from hyaline to reticulated cartilage is more abrupt, and the latter is not directly continuous with the fibrous band of the cord, but at the place where it commences in the male we find an elongated nodule of fibrous cartilage with small but very closely packed cells in a fibrous stroma, which is continuous posteriorly with the reticulated end of the vocal process, and gradually changes into the fibrous band anteriorly, the cells becoming less numerous and the fibrous stroma more distinct.

This nodule in the vocal cord is sometimes found in the male larynx also, but is usually only rudimentary, there being a slight crowding of cells in the fibrous band corresponding in extent and position to the nodule in the cord of the female.

The existence of this structure in the female vocal cord was first surmised by Mad. E. Seiler⁴, from the peculiar position assumed by the cords in certain parts of the female voice, and was afterwards demonstrated by her on minute dissection of the female larynx. These cartilages were called *cuneiform* cartilages by their discoverer; rather a misleading appellation, as many European anatomists have long designated the cartilages of Wrisberg as the *cuneiform* cartilages.

At the insertion of the vocal cords into the thyroid cartilage we also notice small nodular processes of fibro-cartilages extending within the fibrous band, and these are more strongly developed in the male than in the female, as mentioned by Luschka⁵.

To sum up the results of these investigations, we find:

1. That the human vocal cord consists chiefly of a white fibrous band, containing a few elastic tissue fibres, which is stretched across the cavity of the larynx, being attached anteriorly to the angles formed by the junction of the two plates of the thyroid cartilage, and posteriorly to the vocal process of the arytenoid cartilage.

2. That this vocal process of the arytenoid cartilage consists of two portions, a hyaline and a reticulated cartilage.

3. That it carries on its extremity an elongated nodule of fibro-cartilage, better developed in the female than in the male.

4. That a small nodule of fibro-cartilage, better developed in the male than in the female, serves to strengthen the vocal cord at its anterior insertion.

5. That the perichondrium of the thyroid cartilage and of the vocal process of the arytenoid cartilage are continuous into the lateral boundaries of the fibrous band of the vocal cord.

6. That the thyro-arytenoid muscle is intimately connected with the fibres of this band.

7. That the mucous membrane overlaying this band is covered with pavement epithelium and contains vascular papillæ, but is destitute of glands, while the rest of the mucous membrane of the cord is covered with ciliated epithelium, and contains racemose glands.

8. That the mucous membrane is but loosely connected with the subjacent structures; and,

4. E. Seiler, *Voice in Singing*, 2d ed., Philadelphia, 1874.

5. Loco cit.

9. That there is a groove on the inferior surface of the vocal cord, running parallel with and close to its free edge.

The conclusions to be deduced from the results of these investigations in regard to the physiological action of the vocal cords during phonation are, I think, both new and plausible, and appear to me to explain several points which hitherto have not been clearly understood. The fact that the fibrous band presents at cross-section the peculiar irregular outline of a triangle, when relaxed, indicates that as soon as the cord is made tense this band flattens out and becomes both broader and thinner, thereby obliterating the groove at its lower surface, and which I believe to be merely the result, as it were, of a folding up of the band. As soon as the vocal processes of the arytenoid cartilages are approximated to each other, the bands are flattened out still more, because the thyro-arytenoid muscle being intimately connected with the external portion of the band, when contracting to aid in the rotation of the arytenoid cartilages, holds it in position while the reticulated portion of the vocal process bends backward under the combined influence of tension of the cords and rotation of the arytenoid cartilage, and thereby increases the distance between the inner edge and the outer boundaries of the fibrous band, thus distending it transversely.

This takes place in the chest register of the voice, in the production of which we notice laryngoscopically that there is a vibration of the cords in their entire width. In the falsetto register, on the other hand, in producing which the edges of the cords only are seen to be in vibration, the inner fibres of the thyro-arytenoid muscle, which are attached to the reticulated portion of the vocal process, contract so as to prevent its bending backward and tend to make the outer portion of the fibrous band stiff and unyielding, so that only that portion of it which is on the inside of the reticulated part of the vocal process can vibrate.

In the head register of the female voice the fibro-cartilaginous nodules beyond the reticulated portions of the vocal processes become stiffened, together with the whole of the vocal process, by the contraction of the innermost fibres of the thyro-arytenoid muscles, so that the posterior halves of the vocal cords become stiff and unyielding, and if pressed together by the rotation of the arytenoid cartilages, the vibrating portions of the cords become shortened very materially, and in this manner the very great rise in pitch which we observe in this register of the female

voices is effected without any undue stretching of the cords.

DISCUSSION.

After the reading of Dr. Seiler's paper, none offering remarks, the President said :

GENTLEMEN :—Although I intended to take no part in discussion during this session, I cannot consent that Dr. Seiler's paper should pass entirely unnoticed. I desire to congratulate and encourage Dr. Seiler. Original research is always of value, and Dr. Seiler has entered upon a promising field. There are so many points in the anatomy of the vocal bands on which information is still deficient, so many on which investigators disagree, that every independent examination is of importance, even if it only confirms results obtained by others. I do not know that Dr. Seiler has brought to light any new truth, but many of the points to which he has called attention are certainly true. I personally regret that he has not adopted what I consider a more correct nomenclature.

Dr. Seiler is right in saying that the vocal process of the arytenoid cartilage (which I wish he would call *posterior* vocal process) consists of two portions, a hyaline and a reticulated cartilage; this was first proved by the microscope by Rheiner more than twenty-five years ago. The anterior vocal process Dr. Seiler does not mention at all; this is a projection on the inside of the thyroid cartilage, said to consist of fibrous cartilage, but I am not sure that it contains any distinct cartilage corpuscles. The vocal bands extend from the anterior vocal process to the two posterior vocal processes.

Each vocal band, as a rule, contains in either its posterior or its anterior portion a small elongated nodule. Though I have frequently examined these little granules, I have not been able to satisfy myself that they are really cartilaginous; I therefore designate them by the non-committal title anterior and posterior vocal nodules. The posterior vocal nodules are better developed in the female sex than in the male, while the anterior vocal nodules are more often absent in females than in males; but I have seen some larynges of either sex in which both the anterior and posterior vocal nodules were present, and also a few in which both were wanting. I believe Dr. Seiler justly ascribes the discovery of the posterior nodules to his mother, Mrs. Emma Seiler. She was wrong in supposing that they are the

same bodies which Wilson, in his Anatomy, describes as "cuneiform cartilages," and she was thus led to give them this misnomer. Of course all of you are aware that the cuneiform cartilages are the so called cartilages of Wrisberg. The posterior vocal nodules, which must not be confounded with the "posterior sesamoid cartilages" of Luschka (these being too little cartilaginous bodies sometimes found at the lateral upper edge of the arytenoid cartilages), had never been recognized, so far as I know, until Mrs. Seiler discovered them. The anterior vocal nodules were already described by Mayer more than half a century ago.

Dr. Seiler states that "the perichondrium of the thyroid cartilage and of the vocal process of the arytenoid cartilage are continuous into the lateral boundaries of the fibrous band of the vocal cord," and "that the thyro arytenoid muscle is intimately connected with the fibres of this band." The first of these statements I might allow to go unchallenged if it did not ignore the existence of the *membrana elastica laryngis*. The second statement was for a long time one of the vexed points in the anatomy of the vocal band. Ludwig, Henle, Kölliker, Bataille and Merkel insisted, as does Dr. Seiler, that the muscular fibres are attached to the band; Luschka, Verson and others positively asserted that this is not the case. I think the question was settled about five years ago by Rühlman, whose careful sections showed that while at the very level of the rima glottides, the two kinds of fibres run simply closely parallel to each other without union, there is a more intimate connection immediately below this level; i. e., below the level of the rima, the muscular fibres are actually attached to the fibrous band.

Finally, others of the results of Dr. Seiler's researches, such as concerning the groove along the under surface of the vocal band, the loose connection of the mucous membrane with subjacent structures, etc., are well known, and carefully described years ago by Luschka. But I again cordially congratulate Dr. Seiler that he has entered upon these original examinations. The number of those engaged in such investigations is unfortunately very small, and we gladly welcome every accession to our ranks. What he has accomplished hitherto is an earnest and a stepping-stone for brilliant future achievements if he will but faithfully persevere.

THE PERFECTED SPONGE CARRIER. By LOUIS ELSBERG, M. D.,
of New York City.

The perfected sponge-carrier consists of two separate blades, embodying in this feature of its construction, the idea of the obstetric forceps. The blades unite scissors-like, with a slot-joint. There is a large-based, conical, guiding pivot in the handle of the right hand blade, fitting in a corresponding depression in the opposite handle. By either a simple or spring bolt, the head of which projects from the end of the handle of the left hand blade and which catches in an opening or cut of the pivot, the two blades can be firmly united and again readily separated. At the extremity, each blade is well toothed for a distance of two centimeters; for this length the blades meet laterally, while from here to the joint, the right hand blade covers the left. At about $5\frac{1}{2}$ centimeters from their extremities the blades are bent downward at about $1\frac{1}{4}$ right angle, or more accurately speaking, at 114° , the turn being rounded. At the further distance of $5\frac{1}{2}$ centimeters the joint commences. This is a little more than 1 centimeter in diameter; thence the blades run side by side. About 9 centimeters from the joint the handles commence, which are 8 or 9 centimeters long, so that the instrument, from the end of the handle to the bend, measures nearly 25 centimeters, or about $9\frac{1}{2}$ inches. The proper dimensions and bend of the instrument combine the necessary strength and rigidity. A piece of sponge, lint or other material, of either small or large size, is readily grasped and held so firmly that it is impossible to lose it, and yet, when desired, it can be detached without the necessity of being touched. (In demonstration of this a piece of writing paper was grasped with the instrument and though torn off in every direction the part held between the blades remained intact until unclapsed, when it instantly fell to the floor.)

To attach the sponge or wad it is held in one hand, usually the left, and the instrument in the other. With a little practice it is very easy to separate the blades to any required extent and introduce the sponge; simply pressing the blades together, and, in the absence of the spring, pushing the bolt fastens the sponge. After the application has been made the bolt is withdrawn,

whereupon the blades separate, and one is taken in each hand; the sponge or wad and any mucus or purulent matter attached to the blades have either already fallen off or are detached by rubbing the blades against each other. Every part of the instrument admits of being thoroughly cleaned, and if necessary, disinfected. The instrument is not liable to get out of order; even the spring is apt to last unimpaired an indefinite length of time, but if the spring gives out or is done away with altogether, the instrument works as well as before, only requiring the little additional labor of pushing the bolt home instead of having it put in place by the spring.

"Usually one sponge-carrier suffices for all cases, but I have had some constructed which I use for childrens' larynges only, and some with which I can reach lower down in adults. The former are respectively 1 and 2 centimeters shorter from the bend to the toothed extremities, the latter respectively 1 and 2 centimeters longer.

"The same dimensions and bend answer for nasal and pharyngo-nasal medication as well as for laryngeal. For the fauces, however, although the same instrument can be employed, I frequently use one in which the bend commences immediately beyond, or very near to, the toothed extremity of the instrument."

The perfected laryngeal sponge-carrier is also an excellent forceps for other purposes.

The same instrument straightened, or with different bonds, can probably be usefully employed in otological, gynecological and other practices.

TRI-STATE MEDICAL SOCIETY.

[Reported for the JOURNAL.]

THE CHOICE BETWEEN LITHOTOMY AND LITHOTRITY. By REUBEN A. VANCE, M. D. of Cincinnati, Ohio.

The state of the urinary passages, so far as relates to size and irritability, is an important element in the choice between lithotomy and lithotrity. In order that any patient may avail himself of a capital operation, he must be free from certain organic affections, notably cancer, aneurism, bright's disease and structural derangements of the heart and lungs. Granting that he is free from such disorders, the size of the stone and its hardness or softness must be determined. If a stone is neither very hard nor very large, or what amounts to the same thing as being very large, the presence of multiple calculi, and the patient's urinary passages are of such a size as to admit a lithotrite with ease, and not so irritable, but that the crushing instrument may remain within the vesical cavity for a few moments at a time, the case is one susceptible of relief by lithotrity, it matters not the age of the patient nor the composition of the stone. In the majority of cases, patients suffering from stone are free from all other affections; the urinary passages are sufficiently large and there is nothing in the character of the calculus to prevent the use of the lithotrite except the presence of such an extreme degree of irritability, that they cannot bear the slightest instrumental interference. In such patients, lithotomy is often resorted to, when by just rights the patient is one who should have been relieved by lithotrity. Since morbid irritability of the urinary passages is the only impediment in the path of the lithotritist in these cases, and especially since I have recently been compelled to contend with this obstacle in a number of instances, I desire to call the attention of the members of this Association to the measures which have rewarded my labors with success.

The principle upon which my practice is based is one almost as ancient as medicine itself and I would not be surprised to find that the very steps I have taken, had been trodden by some of

our predecessors long ago. Be that as it may, I know that the process I desire to present to your attention is one that has been attended with gratifying results in my hands, and although I never knew of any one who used it and now believe the plan original, still, as I just said, I introduce it, not because it is a device of my own, but because it is a plan which when faithfully practiced, has always relieved urethral irritability and proved an invaluable adjuvant in controlling hyperæsthesia of the bladder and vesical spasm. In a word, I rely upon local applications of a strong solution of sulphate of morphia where the urethra alone is affected; the brief sojourn of the solution in the vesical cavity being at once succeeded by such a flood of pure warm water that the last traces of the anodyne are immediately washed away, when the cavity of the bladder is subjected to a slight degree of distension by means of water in a fountain syringe. If the urethra is so very sensitive, that it rejects the catheter, I take a penis syringe and inject half an ounce of a solution consisting of twenty grains of morphia to the ounce of water. Let the patient retain this injection for from one to three minutes; then evacuate the fluid and at once pass a catheter, the canal of which is occupied by a second tube, emptying near the extremity of the beak. At the end of the beak are two lateral openings, one on each side from an inch to an inch and a half in length. Water injected through the internal tube of the catheter is emptied into the cavity of the larger external tube near the distal extremity of these lateral openings and if it meets with any obstacle to its free flow out of the latter, if the catheter, for instance, is inserted into the urethra, the water immediately returns through the outer tube and is discharged from the proximal end of the catheter, connecting the proximal orifice of the internal tube with a fountain syringe and permitting fluid to flow into it, and then slowly inserting the catheter through the urethra from the external to the internal orifice of that tube from the meatus to the neck of the bladder, allows the surgeon to subject the walls of the urethra to the slow, steady and continuous action of whatever fluid may be employed.

In the case of a nervous, irritable young gentleman, but recently under my care, I was unable to pass any instrument until a hastily improvised, but very strong aqueous solution of the sulphate of morphia had been injected. This was retained but a moment; as soon as it was voided, I passed the beak of a litho-

trite into the meatus, and met with literally no obstruction whatever, as I gently but firmly forced it onward into the bladder. There is a class of cases in which the retentive power of the bladder has been so sadly impaired, that they can keep but little urine in the vesical cavity. Others, and in this connection I am speaking only of patients with stone in the bladder, can keep their water until something draws their attention to their urinary organs, when they must immediately relieve themselves. In such persons lithotritists who are averse to injecting fluid into the bladder in order either to measure or crush, find the severest trials to their patience.

Long after I became aware of the value of injections of strong aqueous solutions of sulphate of morphia in controlling urethral irritability, I was fearful of employing the same measure in individuals suffering from vesical irritability, for fear enough of the solution might remain behind to cause unpleasant, or even dangerous consequences.

The peculiar form of double catheter just described does away with all objections of that kind. By calling it into requisition, an ounce or so of a powerful solution, say one of twenty grains to the ounce, may be thrown into the bladder; then connecting the internal tube with a fountain syringe properly charged with warm water, the valve is opened and the water allowed to flow into and wash out the vesical cavity. In this way, there need be no danger whatever of any of the narcotic remaining in contact with the mucous membrane a moment longer than is desired. Sir Benjamin Brodie long ago detailed the value of slight distension, applied daily and continued for a length of time, in the treatment of that form of cystitis accompanying vesical calculus in which the bladder is contracted and the vesical cavity reduced to a minimum. An elderly patient, in whose case strong aqueous solutions of morphine had rendered me valuable aid in overcoming extreme hyperæsthesia of the urethra, presented all the indications for the adoption of Brodie's plan. The bladder never retained more than a tablespoonful of urine at a time and was evidently greatly inflamed as well as very irritable. Distension was faithfully practiced for more than a fortnight, but although there was a slight increase in the quantity of fluid retained and the length of time it was kept in the bladder, still the improvement was anything but satisfactory. I made arrangements to subject the vesical cavity to the influence of hot injec-

tions from a fountain syringe through a double catheter of the kind described. When my arrangements were complete it chanced that a part of a thirty grain solution of morphine stood conveniently near. On the impulse of the moment, I slowly injected all of this solution that the bladder would hold; I continued until some of the fluid returned through the outer tube. Immediately connecting the internal tube with the fountain syringe, a stream of warm water was turned into the bladder and the cavity of that viscus thoroughly washed. Then placing my finger over the orifice of the lower tube, the cavity of the bladder was subjected to the pressure of the water in the syringe; at the end of a few moments, I removed my finger to see how much water I had been able to force into the bladder (at the same time cutting off all flow from the syringe by turning the valve) and to my great delight, more than six ounces passed from the vesical cavity.

Profiting by this opportune hint, I repeated the narcotic injection immediately before each subsequent attempt at dilatation of the bladder, and the consequence was, that at the end of another week, I was enabled to measure the stone without injecting a drop of fluid.

The strong solutions of morphine seem to benumb the peripheral nerves, and indirectly to subdue reflex muscular contraction. The importance of this latter point will be apparent to every observer who has attempted to pass a sound through the opening in the triangular ligament of a patient suffering from stone. Not only do we find that exalted functional activity has resulted in an increase of muscular strength at the point, but the same process has caused hypertrophy of the muscular walls of both urethra and bladder. In the strong solutions of the sulphate of morphia (xx grains to the ounce), such as I have employed, we have an agent powerful enough to momentarily control this action as well as to cause transient abeyance of hyperæsthesia of the mucous membrane; an agent, simple though it be, of great efficiency in preparing the urinary organs for the successful manipulations of the lithotritist.

ADAMS COUNTY (ILL.) MEDICAL SOCIETY.

[Reported for the JOURNAL.]

A quarterly meeting of the Adams County Medical Society was held in the City Council rooms at Quincy, Ill., February 8th, 1880.

Your correspondent was not present at the morning session, but will try to give a faithful report of the afternoon session.

About twenty-five members were present, Dr. E. G. Castle, the President, being in the chair, and Dr. Wm. C. Pipino, the efficient Secretary, at his post.

Dr. L. H. Cohen, who was to have read an essay upon typhoid fever, requested longer time to prepare his paper. Granted until the annual meeting in May.

Dr. J. H. Aleshire presented a child with a tumor about as large as a man's fist, in the parotid region, for examination by the members. It seemed to be the unanimous opinion that the tumor was a cyst and could be easily extirpated.

OVARIOTOMY.

Dr. Joseph Robbins read an excellent and entertaining abstract of a paper that he had sent to the *Am. Jour. Med. Science*, describing an ovariectomy he performed April 3d, 1879, with the assistance of Drs. H. W. Kendall, R. W. McMahan and others.

The patient, a daughter of a late prominent physician of Quincy, had fallen down stairs some five years before the operation, from which time she dated the growth of the tumor. The tumor was aspirated and a large quantity of fluid removed some months before its extirpation. At the time of the operation extensive adhesions were found, particularly to the bladder, which very much complicated the operation, as did hæmorrhage from the points of adhesion. The hæmorrhage was stayed by the application of powdered per-sulphate of iron to the bleeding surfaces. Besides fluid the cyst contained a quantity of hair and some pieces of bone. She lived a few weeks after the operation, and died of what was supposed to be cancerous degeneration of the organs in the pelvis. Any further information may be derived from the paper, which will appear in the above mentioned journal for April, 1880.

Dr. Wm. A. Byrd—It has been my misfortune to have to make abdominal section eighteen times, and my good fortune to lose but three of the patients. One of these sections, as the most of you gentlemen are aware, having assisted me, was an ovariectomy. To my mind the Doctor's case was congenital, and of the dermoid variety of ovarian tumors. The falling down stairs was only accidental to, or at most only accelerated its growth. The inner portion of the tumor having an epithelial lining, would be apt to result in malignant degeneration unless there was complete extirpation of the membrane. The use of persulphate of iron as a styptic causes hard, very irregular coagula, very difficult of disintegration, to act as irritants, and they would become active causes of epithelioma appearing early from cell proliferation. The galvano-cautery would be the best styptic, and perhaps the actual cautery with heated irons would be the next best.

My own case differed from Dr. Robbins' in that it was a polycyst. There were adhesions to the parietes of the abdomen from two and a half inches below the umbilicus up to the liver, and for eight inches transversely across the abdomen. There were also adhesions to the ileum. After the largest cyst had been emptied, there was a mass about the size of an infant's head that was not examined until after the operation was completed, when it was found to consist of twenty or thirty cysts from the size of a filbert to that of a hen's egg, all containing a jelly-like substance. The color varied in different cysts; in some clear, others, red, and in still others, nearly jet black. The patient made a rapid recovery, never having much fever or pain, and but little tympanitis, which was relieved by inserting a catheter as a rectal tube. The tumor aggregated about seventy pounds in weight. The operation was performed Sept. 4th, 1879, and Sept. 29th the patient returned home. Nov. 27th, Thanksgiving day, she came in my office and informed me she had attended three parties since her return home, taking an active part in the dance, at each, such conduct being in direct disobedience to my instructions. As far as I am able to learn, this is the first and only successful ovariectomy that has been performed in this and several surrounding counties, although the operation has been done a good many times by excellent surgeons at home, and by distinguished surgeons that have been brought from larger cities, their results having been uniformly fatal.

Dr. Cohen—Did I understand you to say that you used iron instead of silver wire for ligatures and sutures?

Dr. Byrd—It has been my uniform practice to use iron wire in operations for laceration of the cervix uteri, for ruptured perineum and vesico-vaginal fistula, but in this case I used carbolized silk, both for ligating the pedicle and for sewing up the abdomen. That I may have fresh carbolized silk I melt one part of carbolic acid and ten of wax together, and when cool put the pieces of wax in a salt mouthed jar to prevent evaporation of the acid. When I need ligatures I use this preparation for waxing them. In the after treatment, I followed Dr. Bozeman's method of rectal medication and alimentation as well as I could.

Dr. Robbins—I did not use Monsel's solution as a styptic; merely a small quantity of very finely powdered persulphate of iron, applied by putting the moist finger in the salt and then applying it with what adhered to it to the bleeding surfaces.

DERMOID TUMORS.

Dr. Robbins—I believed with most authors until quite recently, the doctrine that all dermoid tumors were congenital, but since reading Mr. Tait's book, I have somewhat modified my views, and can conceive of them having an external origin.

Dr. Byrd—I can in some cases readily see the reason for an external origin. Between the gluteal muscles, over the lower end of the sacrum, beneath the skin, is a favorite location for these tumors. The first one of the kind that I know of personally, was removed a few years ago from a fireman by Dr. W. C. Pipino. Since then, I have removed two, one from a gentleman sent me from Pike County, and the last from a young lady in this city about three weeks ago, assisted by Dr. J. A. Wagner. I once was consulted by a carpenter for a painful, inflamed swelling of the umbilicus and surrounding tissues. I cut into the swelling and turned out quite a lot of hair and lint from off his clothing, that worked down into the umbilicus and caused inflammation and adhesion of the canal behind it. Here was a dermoid tumor of external origin, but I could not see how the intergluteal tumor could have such an origin until Mr. D., a gentleman well known by most of the members present, called my attention to a peculiarity that had existed in his person from birth. In the skin, just above the lower end of the sacrum, was a hole the size of a crow quill which was the opening of a canal

of the same size, lined with skin, that extended for an inch and a half under the outer skin, parallel to and toward the lower end of the coccyx. This canal could easily become the source of a dermoid tumor as the umbilicus did.

LAPAROTOMY AND COLOTOMY WITH FORMATION OF ARTIFICIAL ANUS
FOR OBSTRUCTION OF INTESTINES.

Dr. Byrd—As somewhat of an appendix to the subject of ovariectomy, I wish to report a case that may be of some interest to the gentlemen present. January 14, 1880, I was called by Dr. Joel G. Williams, of Fowler, to see Mr. John B. Gilmer, of Coatsburg. The patient was a farmer, aged about forty-five, and had been suffering with enteritis for some three months, but for some three weeks before I saw him he had ceased to have any discharges from his bowels, except blood and mucus. He had been seen by several physicians, all of whom pronounced his case hopeless, except Dr. Williams, who, thinking laparotomy offered some hope, telegraphed for me. I found the patient emaciated, and worn out with pain and the want of sleep. The abdomen was tympanitic and so greatly distended as to almost prevent breathing and greatly crippling the action of the heart. Having four or five years ago successfully relieved a patient of excessive tympanitis, that had typhoid fever, for Dr. Francis Drude with the aspirator, I decided to try the same treatment in this case. The needle was passed into the abdomen at its most prominent and resonant part, about two inches above the umbilicus, and a large quantity of gas withdrawn, causing great relief. I now decided that the obstruction was in the iliac region, and that laparotomy offered about the only chance for his life. The obstruction had before been supposed to be situated at the ileo-cæcal valve. Injections had been resorted to, and a soft rubber tube passed up the rectum, while folding or rolling up on itself left the impression that the obstruction was higher. I was so deceived myself. The patient was so much relieved that he wanted any farther interference deferred.

January 16th, was sent for again, and found the tympanitis nearly as great as before, and the patient anxious for an immediate laparotomy. It being late in the afternoon, and wishing to operate antiseptically, I aspirated again and ordered a drachm of fluid extract opium per rectum, and promised to return early the next morning and operate. I requested Drs. J. A. Wagner

and E. B. Montgomery to accompany me, but Dr. Montgomery was prevented by an obstetrical case.

January 17th, at 9 A. M., we commenced the operation, first washing the patient's abdomen with carbolized water, one to forty, and shaving the abdomen. The assistants' hands were carefully washed in carbolized water, then oiled with carbolized olive oil. Drs. Joel G. Williams, J. A. Wagner, H. C. Skirvin, and Messrs. Chas. M. Gilmer and Richard Powell acted as assistants. Putting the patient under the influence of ether, the abdomen was opened for eight inches in the median line when the distended bowels poured out. The distension of the bowels was so great that before a proper search could be made for the obstruction the gas had to be removed with the aspirator. Two knuckles of ileum and the sigmoid flexure of the colon were now found bound down in the pelvis and occluded by a band passing from one knuckle of the ileum over and including three-fourths of the diameter of the other knuckle, then splitting like a Y and enclosing the colon. The band was very vascular and about the size of my little finger, and round at its commencement, flattening and spreading out fan-shaped before it became attached to the peritoneum over the left ileum and sacrum. Where it passed over and was attached to the second knuckle of ileum it was about an inch and a half wide. I ligated the round part of the band with carbolized silk, divided it between the ligature and second portion of ileum, then cut off the ends of the ligature near the knot and dropped the pedicle. The second knuckle I enucleated, having considerable hæmorrhage. The blood oozed up from the whole of the denuded surface of the bowel. This was at length stopped by repeatedly applying sponges squeezed out of hot water. The adhesions over the colon were so firm, and so intimately connected with the great pelvic vessels, and so deep in the pelvis as to prevent my seeing what I was doing, that I decided the safer plan would be to make an artificial anus in the left iliac region. This I did by making an opening two inches and a half long, through the walls of the abdomen, just internal to the internal abdominal ring; then passing four threaded needles through the colon, an inch and a half apart, longitudinally and three-quarters of an inch apart transversely, and then carrying them through the opening and stitching the colon by that means to the edges of the opening so as to prevent fecal extravasation into the abdominal cavity, then

opening the colon through the hole in the abdomen between the stitches. When the colon was opened, from a quart to three pints of feces poured out and a like amount passed during the night. The bowels, which had been kept wrapped up in flannel wrung out of warm water during the operation, were now carefully cleaned and replaced and the central abdominal incision closed with twelve carbolized silk sutures. A strip of rubber dam two inches and a half wide was dipped into carbolized water and laid over the abdominal wound and held in place by three pieces of adhesive plaster three inches wide passed around the whole body, exerting even pressure from the ensiform cartilage to the anterior superior spinous processes. Over these, and covering the whole abdomen, absorbent cotton three inches deep was laid and held by a broad flannel bandage snugly applied. The operation was conducted under a spray from a DeBeer's antiseptic steam atomizer, the solution being one of carbolic acid to twenty of distilled water. The whole operation occupied two hours, and when finished the patient seemed about dead, but was revived by hypodermic injections of alcohol and the application of hot irons and bricks around the body.

Since the operation the patient has not had a single bad symptom, and is now able to sit up a little, having all his passages, except a little mucus through the artificial anus.

Dr. Castle—I do not think any one will ever accuse you of a want of courage.

Dr. Byrd—I have reported the case desiring criticism. What else could have been done?

Dr. Castle—Nothing, but stand by and see him die.

Dr. Byrd—He did not need a physician for that office, as almost any of his neighbors would have done that much for him. Twice before have I wanted to perform laparotomy for intestinal obstruction. Once, in a case I saw with the late Dr. C. C. Brown, of Mendon; the patient objected to the operation and died two days afterwards. The other patient was Edward, the son of my friend Dr. W. M. Landon, of Burton. The Doctor was willing, but a very distinguished surgeon was consulted, who advised against the operation; it was not done and the young man died.

Dr. Landon—I can bear sorrowful testimony to the truthfulness of the Doctor's report. I shall always regret that the oper-

ation was not performed, and shall ever hereafter advocate the operation as affording the patient some chance for life.

Dr. Nickerson—I would like to know of Dr. Byrd the result in the case in which he extirpated several inches of intestine and a portion of omentum, for gangrene in strangulated hernia, making an artificial anus, a year or so ago?

Dr. Byrd—That was the Lyons case. As you know, I made a plastic operation for the closure of the opening, which was a success to the extent of closing all but an opening about the size of a goose-quill. The old man tried to keep that from closing up, but his family physician, Dr. Aleshire, who is present, informs me that it has been closed for some months, and that he was well enough to attend a crop of corn last summer.

STRANGULATED HERNIA.

Dr. Byrd—Since the subject of strangulated hernia has been brought up I will mention a case I operated upon yesterday with the assistance of Dr. J. F. Durant. The patient, a gentleman aged about forty-five, has been troubled a little for the last two or three years with double inguinal hernia, but has worn no truss. There had been no constriction to bother him, until yesterday about one o'clock, when upon making some exertion the left hernia came down and became strangulated. Having great pain and vomiting he sent across the street after Dr. Durant; the doctor not being at home the messenger came on after me. Not being able to reduce the mass, which was about the size of my doubled fists and dull upon percussion, feeling solid to the touch, I sent for Dr. Durant, who had returned, and he came. It was about three o'clock, two hours after the first symptom of strangulation. We put him fully under the influence of ether, inverted him and tried taxis for about ten minutes, but making no progress I cut down upon and opened the sac and divided the constricting band, which was part of the sac. Nearly half a pint of serum the color of arterial blood flowed away when the sac was opened. The bowel that was contained in the sac was about as dark as a piece of liver. The bowel was returned, two deep iron wire sutures inserted, and the wound dressed with a dry compress and a spica bandage. A fourth of a grain of morphine was given hypodermically. This morning he was doing nicely, having slept well during the night; there was no fever and the pulse was but slightly accelerated. I have always been an advocate of

early operative interference in cases of strangulated hernia, and the more I see of it the more I am convinced that it is far the safest practice. I believe if this man had had the operation delayed an hour longer there would have been gangrene and almost certain death.

TRACHEOTOMY.

Dr. Byrd—It has been common for me to have something to say about tracheotomy at most of our meetings lately. I have performed the operation but once since our last meeting, and that time successfully, assisted by Drs. Durant, Pipino and Montgomery. But it is not about my own cases that I want to speak, but about cases occurring in the practice of each of two honored members of this society—Drs. J. H. Ledlie and F. M. Casal, of Pittsfield. Both gentlemen were concerned in each case and wrote to me about them. Dr. Casal has been the champion of the operation in Pike county, and I believe was the first to perform the operation for membranous croup, in that county. His patient died, but the relief was so great that there was a revolution of opinion upon the subject. The child became so much easier before dying, and life was so evidently prolonged, that the public began to demand that patients should have the benefit of the operation.

The other case was one of Dr. Ledlie's patients. The child recovered, by the use of the lime-water spray in addition to the operation. I had called the Doctor's attention to the use of lime-water used in that manner in an article upon tracheotomy with the galvano-cautery, and he extended the use, as you remember, of it as a solvent of fibrin, to the dissolution of blood-clots in the urinary bladder. He states that the relief from its use was so great that the little patient would himself indicate that he wanted it used, by pointing to the atomizer, whenever his breathing became difficult.

Although the lime-water spray has been used in this manner, and for the same purpose for years, I consider it of so much importance that I do not think an apology necessary for bringing it before you once more. I do not mean by the lime-water spray the steam arising from slacking lime in the room where the patient is, a practice greatly lauded by some practitioners, which is nothing but steam and has no advantages over steam generated in any other manner, but I mean a spray thrown by an atomizer.

Dr. Cohen — I fully agree with Dr. Byrd in regard to steam generated by slacking lime and I think a tea-kettle does the same thing much better as I have found in cases I have treated.

Dr. Durant — Dr. Byrd did not state that his last tracheotomy was for difficult breathing in a child that had inhaled hot steam, and not for membranous croup. I have always been opposed to the operation, but seeing such speedy and marked relief in that case, which would have certainly died without the operation, caused me in a case of croup I was treating last week, to think of sending for a surgeon to perform tracheotomy, but I concluded first to try jaborandi as suggested from a case in Dr. Landon's practice reported at our last meeting. It acted like a charm, giving speedy and perfect relief; gentlemen, jaborandi when properly used is one of our greatest medicines.

Dr. Pipino — I was in Jacksonville a short time since, and found that Dr. Prince was now using moulds of gutta-percha to the foot in the treatment of talipes, instead of his old method of a board splint fastened with adhesive plaster. He still adheres to the plan of kneading and breaking up adhesions and deformities with the hand, the patient being anesthetized, then putting on a retaining apparatus to which is attached elastics.

Dr. Byrd — In cases beyond the age of infancy, the kneading and manipulating is a long, tedious and painful operation if there is contracture, frequently resulting in failure without the aid of tenotomy.

Dr. Pipino — I have treated fourteen cases; making use of tenotomy in but one, that one got along very nicely, but it might have done just as well without, by taking a longer time and more pains. I have had but one failure in the treatment of talipes and the parents of that child would not permit me to treat it as I wished, so that I hardly feel like the failure should be charged to my account.

Dr. Landon referred to eight cases of visceral cancer occurring in a limited, thinly settled portion of country that had come under his observation within the last four years. The Society requested him to prepare a report on visceral cancer for the next meeting, which the doctor promised to do.

The Society then adjourned to meet at the same place the second Monday in May.

ST. LOUIS MEDICAL SOCIETY.

SATURDAY MARCH, 6TH, 1880..

Case of Septic Poisoning.

DR. HUGHES—I was attending a gentleman who was suffering from apoplectic threatenings of a very marked character, and incipient paralysis and delirium.

During his illness, whilst delirious, he caught a severe cold which produced inflammation of the tonsils, involving all the soft parts of the pharynx. Dr. Wm. Porter saw the case with me. It was necessary to constantly incise the tonsils to prevent suffocation. The accumulations were very great, and in order to remove them, I sometimes placed a small piece of wood between his teeth and brought them out of his throat with my finger.

A lady friend who visited him during his illness, attempted to remove the obstructions as I had done and in doing so the teeth of the patient (in one of his delirious moments) closed tightly upon her index finger.

On the same day it began to pain her. On the following day she called my attention to it and asked me to give her relief. On the third day after the reception of the injury to the finger, a large bleb appeared. It was much swollen and appeared dead.

The mortification appearing to be superficial and the lines of demarcation not being well established, I was uncertain whether it was a felon or not. At all events, I determined to lance it, and in making the attempt, she withdrew her finger. Dr. Hodgen was passing just as we were taking our departure. We hailed him, and the finger was thoroughly lanced.

The finger was entirely dead, and black by the next day. She had the usual chill and resultant irritative fever and swelling of the joints.

The left knee was first affected, then the wrist of that side, then the right wrist and right knee. The pain in the joints was intense and they were very much enlarged. The case seemed to do so well in the first week on large doses salycine and quinine with drop doses *ter die* of carbolic acid that Dr. Hodgen and my-

self hopefully looked for a favorable result; subsequently Dr. Coles also saw this case.

But the patient died on the 29th of November, the thirteenth day after she was bitten. Her death was from septic poison, the result of that injury and so far as I knew and so far as Dr. Porter knew, who saw the case however, but once with me, there was nothing but a simple acute inflammation of the throat.

DR. MAUGHS—Was the inflammation of throat diphtheritic;

DR. HUGHES—No, sir. I examined the man every day and every night particularly, with reflected light thrown into the throat and found no evidences of diphtheria.

DR. HURT—Was the lady in good health?

DR. HUGHES—No sir. She was not in first-rate health; she had been somewhat of an invalid for several years. I treated her for malarial poisoning during the summer, which was chronic with her. I gave her pretty large doses of quinine, arsenious acid and iron and bromide of sodium, ammonium and elix. val. ammonia. She had improved very much in health for about six weeks before she met with this accident. In this case, of course, the time of the relapse from the time of the appearance of the constitutional symptoms would seem to indicate the absorption of the septicæmic matter, but it is more difficult to account for some of the other cases which are on record where death is stated to result so speedily from similar wounds.

If my memory serves me aright, Dr. Watson relates a case of tetanus in a negro, resulting in death within fifteen minutes or half an hour after the reception of the injury. I gave this woman carbolic acid internally, one drop three times a day and whenever she was awake at night.

DR. MOORE—Any abscess in the lungs?

DR. HUGHES—Her lungs were not strong, but there was no satisfactory evidence of abscesses from septic poisoning.

DR. STEVENS—The difficulty in these cases where there is an apparent relation of cause and effect, is to determine positively what is the cause. Now it would seem as though abrasion having occurred in this case, that some poison had entered the woman's system producing a septicæmia from which she died. But do we not know that there are cases of high inflammation

and gangrene starting from a certain point, going on to produce death where there is no evidence whatever of septicæmia? I believe there are many such cases. The system is sometimes in such a condition, that a slight wound from a clean instrument may produce such a high form of inflammation, as the erysipelatous, ending in death. Still that is no argument against the induction of poison in one way or another. I recollect one case, a most strongly marked one, that of a medical student, named Krumm. He stated, that after leaving the dissecting room and having washed his instruments, he had pared the corns of his foot with one of them. Inflammation of the corn and of the foot followed; erysipelas attacked the inner part of the thigh, then gangrene developed, and he died from the effects of it. And I have witnessed many cases of dissecting wounds resulting in very high inflammation. I once suffered in that way from a wound in my finger; the whole arm became inflamed, even the glands under the axilla. But to distinguish between cases of real and apparent septicæmia, is sometimes very difficult.

DR. MOORE—I should suppose that the original inflammation of the finger was owing to the mechanical injury of the man's teeth, and the finger mortified on account of the constitutional condition of the patient and that the mortification which followed, was the real source of the septicæmia. We frequently see severe inflammation from slight wounds. I remember years ago attending a medical student, a large, stout plethoric man, who was taken sick and insisted on being bled. He had high fever and a determination of blood to his head, and at his request, I bled him. Erysipelatous inflammation took place at the puncture of the lancet and extended over his arm, and I believe before he got well it reached his face.

But he had no symptoms whatever of erysipelas, previous to the blood letting, and the erysipelas commenced at the puncture of the lancet. However, I must say, that erysipelas was very prevalent at that time. I suppose this was twenty-five years ago.

DR. MAUGHS—Were you in attendance on erysipelatous patients at the time?

DR. MOORE—Well, I don't know. Erysipelas occurred as an epidemic at the time for several years. There were fourteen cases in our class of about seventy-five. This was about 1843-4. The tendency to erysipelas was greater in '45. I recollect visit-

ing an old lady then, who was the patient of an old physician here, who left town and she sent for me. When I got there, her face was black from the eyes down. I thought they had been using nitrate of silver, and I examined the case as carefully as I could. The skin had the "sound" of parchment. Mortification had taken place and I found the slough was beginning to spread.

The woman died and the slough came off. That was the most strongly marked case of erysipelas that I ever observed.

DR. PREWITT—I think we all agree with Dr. Hughes that this was a case of poisoned wound, although we may not all agree with him that it was a case of poisoning from the man's throat. A person may die from poisoning of the whole system from a mere scratch. But I do not see it is impossible, as this man's throat was inflamed, that the inflammation of the finger might not have resulted from that poison. It certainly was a poisoned wound either from without or within. It has been my fortune to meet with a vast number of cases of enlarged and suppurating glands during the past winter—a large number of cases of enlarged glands about the neck without any inflammation of the throat, and a large number of suppurating glands elsewhere. There seems to be quite a disposition to something of this kind. Usually when we find enlarged glands about the ramus of the jaw, we expect to find some source of irritation in the neighborhood, but I have seen a number of cases where there was enlarged lymphatic glands, without any cause of irritation whatever, sometimes suppurating, sometimes not. I have had to lance quite a number of cases recently in the axilla, and about the neck; rather occult abscesses they might be called; not acute, nor coming on with high inflammation, but rather slowly formed and without much pain, and it occurred to me that there was probably a tendency toward a pyogenic condition that might have something to do with the injury in this hand.

DR. POST—About 14 months ago, whilst an assistant at the Female Hospital, I had under my care a woman with tertiary syphilis. She also had the morphine habit, which had affected her constitutionally, and at the time had a number of tertiary sores. The history of the case was about as follows: Some years ago, previous to coming under my observation, she had contracted syphilis. Later, probably with reference to assuaging the pain attendant on the disease, she contracted the morphine habit.

One night whilst walking through the shed attached to her house she struck her forehead against a nail. The wound, instead of getting well, became swollen, and ultimately suppuration set in. Finally there was a running sore, which at the time I saw her exposed the bone over a surface of probably an inch in diameter. This piece of exposed bone was also dead, and in the course of a few weeks I separated and removed it. During her stay at the hospital she was upon constitutional treatment, and improved very much, and at the same time she recovered from the morphine habit, so that when she left the hospital she was in very good health. After she left, some time in January about a year ago, she was very much troubled about the scar on her forehead, it leaving a depression from a sixth to an eighth of an inch in depth, located about the middle of the forehead, some half an inch below the margin of the hair, and it was impossible to keep it hidden. She came to me and requested that I would do something for this scar. I examined and found it to be about three-fourths of an inch long, of a general rectangular appearance, rather depressed from an eighth to a sixth of an inch and covered by scar tissue adherent to the bone underneath. I advised against an operation, and told her I thought the chances of success from an operation were very few, and the probability was that I should set up a sore there, which would increase the disfigurement rather than improve it. By that plea I got time to look the matter up, and consulted with some of my medical friends and looked through the books, and I could find nothing definite with regard to such operations. I had traditions of replacing the bone, after trephining by silver plates, but those wounds were covered by scar tissue and a good deal of cellular tissue to keep up nutrition. She reappeared and was very urgent that I should do something for her. So, telling her I thought the chances were nine out of ten against the success of an operation, I consented. I made a superficial cast of the depression, and then with ordinary sheet lead I molded and made two plates, one about double the thickness of the other, which I thought would about fit the scar, and I afterwards took them out and tried them and found whether they were correct or not; being lead they were very easily reshaped. About a quarter of an inch above the edge of the scar I made a horizontal cut, dissected the scar tissue loose from the bone, and slipped the plate into the depression, which it filled quite nicely. I took the largest one.

I then stitched the upper wound and dressed it with simple cold water dressings. Upon the following day there was considerable swelling; the plate moved about freely, and I was uneasy. That day or the day following, I don't recollect which, I used a hypodermic syringe to withdraw a collection which had formed, but instead of being pus I found it to be serum. On the following day I was in doubt whether it was pus or serum, but in the course of eight days the wound had healed. The tissue did not return to its normal color, but had a bluish tinge. I attributed this to the translucency of the skin, which was certainly not over a line in thickness. I have not seen the patient for about five or six months. I heard from one of her friends that she still carries that plate of lead in her forehead and with no unpleasant symptoms. We have cases recorded of bullets being carried imbedded in muscles, but I have never heard of a piece of lead being placed in direct contact with bone, as this was, and covered over with scar tissue not a line in thickness, in a patient who had suffered from syphilis and also from the morphine habit.

DR. STEVENS—I would like to ask the question whether the popular idea as to the insertion of silver plates over openings in the skull has any foundation in fact. Are there any such cases on record in surgical works? There is a prisoner now in jail, charged with murder, who has a depression in his skull which he asserts is the site of a silver plate introduced by a surgeon.

DR. MAUGHS—I was going to ask Dr. Post why he did not use a silver instead of a lead plate.

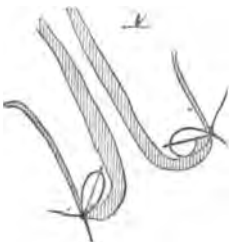
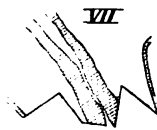
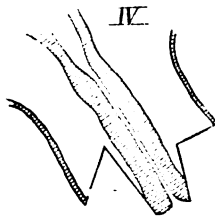
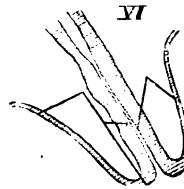
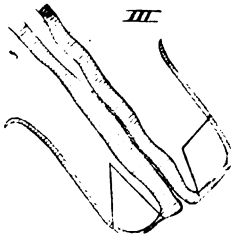
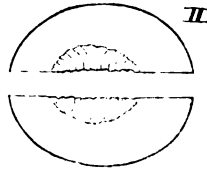
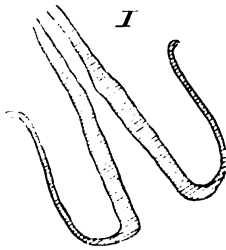
DR. POST—Because lead is just as good and much cheaper.

DR. PREWITT—That was certainly an ingenious operation and has no precedent. The wonder is that the scar did not slough, for such a scar is of low vitality, and anyhow being more than an inch in breadth with a piece of lead underneath that interfered with its nutrition below, it is surprising it did not slough. If the cicatrix lives it is certainly a most happy result of an ingenious design. As to silver plates, if ever used they are not used now.

DR. POST—The scar contracted so that it was not more than half an inch in diameter. It is now in the neighborhood of eight months since I operated. It was necessary at first for her

to wear a bandage over the forehead; the plate had dipped a little bit, and it was suggested that the pressure from this bandage might cause ulceration. The bandage was therefore removed.

DR. LUTZ—Certainly Dr. Post is to be congratulated upon the success of his case. With cicatricial tissues we are always in danger of having sloughing; they are of low vitality and do not readily unite, and this tendency seems stronger in syphilitic tissue than in the ordinary cicatricial tissue. In illustration of this, I had some time ago a case in which I attempted a plastic operation for closure of an opening in the hard palate about three-fourths of an inch in length, in a syphilitic patient about 38 years of age, who had contracted syphilis three or four years previously. He was bothered very much by this opening, and whenever he took food part of it would come up in his nose. He had improvised a plug of his own to close the aperture between the nasal and oral cavities. I attempted to remedy this by loosening the cicatricial tissue around the edge of the opening, and then making on either side an incision parallel to the opening, and about half an inch from the edges. After getting the knife into the opening I made a longitudinal incision parallel to the opening in the hard palate, so that this wound was entirely loosened within the sutures. I brought the edges of the wound together. To prevent the piece which had been cut and which had come loose, from retracting, and being now at the place where the longitudinal incisions were made, I stuffed this part with carbolyzed balls. For several days this appeared to do very well; but afterwards the cicatricial tissue not having sufficient vitality to carry on the process by which its edges were to be united, the stitches sloughed out, and only in the center had union occurred. I now, instead of having one large opening, had two small ones. After the lapse of some time I renewed the operation with no success, and the man now wears at my suggestion a plug made by a dentist.



Dr. A. C. Bernays, del.

Bernstein & Co., Eng.

Figs. I. and II. show the womb after Sims' bilateral incisions.

Figs. III. IV. and V. represent a case where it was only necessary to incise small wedge-shaped pieces to achieve an open canal after the bilateral incisions.

Figs. VI. VII. and VIII. are taken from a case of conical portio vaginalis, where shortening of the canal was resorted to in order to open the inner os. All the figures are diagrams of vertical sections through the median line excepting Fig. II. [See p. 363.]

**On the Treatment of Certain Forms of Endometritis and Endocervicitis Accompanied by Sterility. Gustave Simon's Operation.
By A. C. Bernays, M. D.**

MR. PRESIDENT AND GENTLEMEN:—Having been appointed to read the first paper under our new regime before this society, I will ask your attention for a short time to the above subject.

Endometritis and endocervicitis are diseases which are always manifested or accompanied by hypersecretion of the mucous lining of the body and neck of the womb. From the constancy of this symptom we are accustomed to hear this disorder called leucorrhœa or the whites. It is needless to enter into a discussion regarding the etiology of this trouble, as really very little is proven in a scientific manner. Catarrhs of most other mucous membranes are generally ascribed to colds; this form of catarrh is most frequently reduced to the same vague origin. It is well understood that, when we say a patient is sick and the sickness, be it what it may, was caused by cold, we acknowledge our inability to understand its origin, or, in other words, we beg the question in regard to the etiology.

The other symptoms of the form of endocervicitis and endometritis which we are considering, are the well-known pains in the back, the feeling of heat and fullness or a disagreeable pressure in the pelvis. Menstruation may be normal, but is often very painful and profuse. Sterility almost always accompanies these symptoms. Speculum examination shows the mucous membrane tumefied and congested in such a manner as to almost occlude the os, the passage of the sound being somewhat more difficult and nearly always causing a little hæmorrhage. In other cases the chronic catarrh of the membrane has caused so much swelling and hypertrophy that we have ectropium of the external os, sometimes associated with abnormal development of small cysts or the bodies known as ovula nabothi. In the progress of the disease, ulceration of the mucous membrane of the neck may take place and is not rarely mistaken for the primary malady and treated as such. Chronic metritis may supervene, producing enlargement, not merely depending upon engorgement but upon an infiltration of new-formed connective tissue cells between the muscular trabeculæ. The disease is prolonged over many years, occurs at all ages beginning at puberty,

and has little tendency to self-limitation up to the time of climacteric involution. Sterility is probably caused by the occluded condition of the cervical canal. We can easily understand how the menstrual fluid and the mucous discharge is expelled from the cavity of the womb by the *vis a tergo*. On the other hand, it seems plausible that the spermatozoa cannot penetrate the canal which is either closed by the approximating folds of swollen mucous membrane or by the discharge which is making its way outward probably under no small pressure. The ciliated epithelium plays no part in this process either way, as it, being the most superficial layer of the mucous membrane, is the first to suffer from the chronic catarrh and become desquamated or defunct. I have never, in many examinations with the microscope, been able to detect this ciliated epithelium of the cervical canal, which we hear so often mentioned, and am inclined to dispute its presence in the adult female. I must state here to avoid misunderstanding that, in my remarks to-night, those cases of leucorrhœa accompanied by a patulous os and flabby relaxed condition of the womb in connection with a scrofulous habit, are entirely excluded.

When these cases occur in young married women, they come into the hands of the physician because they are accompanied by sterility and frequently all the dysmenorrhic symptoms are overlooked, the patient only applying for treatment of her barrenness. She comes to find out the cause of her not becoming pregnant, although she has been married for a number of years, and would like to be cured of the disease which prevents the consummation of her and her husband's most ardent wishes. In other cases the pain and the profuse discharge brings these ladies into our offices, and sterility is so utterly disregarded that if the patients knew that pregnancy is more likely to occur after a cure of the troublesome endocervicitis, they would perhaps conclude to suffer these inconveniences and shun the gynecologists.

I must abstain from recounting the numerous methods of treatment that have been and are still practiced by different authorities to cure endocervicitis and endometritis, for this would be an endless task and lead to very unsatisfactory discussion. We know that the numerous internal medications, injections, cauterizations, spongetenting and the many other appliances that are and have been in use can not be relied upon.

These much dreaded and obstinate cases of leucorrhœa which have become almost proverbial as being a bore to the physician, are a sufficient apology for me, if I bring a method of treatment before you to-night, which was invented and practiced by Prof. G. Simon and, I believe, has not yet been published in the English language, and is, consequently, not sufficiently well known in this country. Before describing the operation it will be necessary to make some remarks and explanations upon the correctness of certain pathological observations upon which depends the indication for the operation, unless we are satisfied with the practical results which have been achieved in the hands of Prof. Simon, Dr. Markwald, Dr. Brann and others, as well as myself, by this new and ingenious procedure.

As is well known and appreciated by the profession at present, the treatment of urethral stricture has become entirely a surgical matter, and we have discarded all injections, canteries, etc., and invariably resort to the knife or divulsion, which amounts to the same thing for the cure of diseases where there is a stricture or a fissure in a mucous canal. Now we say it is a fact that in endocervicitis we have analogous conditions to the above named lesions. The swollen condition of the cervical mucous membrane causes a relative stricture or closure of the canal at its narrowest places, and consequently the catarrhal secretion will continue to accumulate above the obstruction till the same is relieved, just as a gleet will continue as long as a stricture exists in the urethra. We will now describe the operation, and then show by the results obtained after its performance in a series of cases, that the pathological principle involved is proven to be correct and that the operation is always reliable and deserves greater popularity than it has already achieved.

Simon's operation¹ which will be well and easily understood by referring to the drawings I have made on the blackboard (see Plate) is an addition to the bilateral incisions of the immortal J. Marion Sims. These incisions were not made by their originator for the purpose here aimed at. Simon first practiced them for the cure of relative stenosis, the result of endocervicitis.

1. The first paper on this subject was published by Dr. Markwald, who was the surgeon to Prof. Simon's Poliklinik at the time.

Having mislaid my copy of the same, I am unable to give the exact date of its publication as well as the Journal in which it appeared. It was about in 1876.

This operation failing of the desired result in all cases and affording only temporary relief, Prof. Simon invented the following modification or addition to Sims' operation. He, like most of us, found that these incisions heal up very rapidly and frequently leave a scar, that only increases the narrowness of the canal and the leucorrhœa will return. In order to prevent this closure of the lateral cuts, Simon made wedge shaped (conical) excisions of both or only one lip of the womb and united the resulting gap by means of two or more sutures as you see in figures IV to VIII. In this way the lips of the womb are effectually separated and kept open in such a manner, as to relieve the stenosis, caused by the swollen mucous membrane, and the muco-purulent discharge, which depended upon the stricture, is cured. The shape and size of the excised pieces depend upon the peculiarities of each case.

Where the stenosis is at the external os, an excision as I have shown in Figs. III and IV is recommended. These are the easier cases to treat and I have sometimes found it sufficient to operate only on the posterior lip. Where the whole cervical canal including the internal os is occluded, we make the incisions as you see them represented in Figs. VI and VII. It will be apparent that these excisions really amount to a partial amputation of the anterior and posterior flaps. This procedure is demanded, because without it, we can not always succeed in opening the internal os. The operation, a plastic one, must be performed with great precision and accuracy. It is evident that the very perceptible shortening of the cervical canal, by this operation will also tend towards the desired result. The eversion of the mucous membrane into the vagina is accompanied by no evil consequences whatever. There is no after treatment required, more than the removal of the sutures, five or six days after their insertion.

Formerly I gave chloroform in this operation, but I have abandoned its use, unless the patient demands it. I advise against its administration on the ground that the procedure is not painful. I operate in the overdone lithotomy position, the thighs being completely flexed on the abdomen. I desire three assistants, but have had to operate with two and even with only one. I use a broad blade, Sim's speculum to draw down the perineum and a broad beaked lever speculum to hold back the anterior wall of the vagina. I then draw down the womb by means of a ligature passed through one lip or by means of a vulsellum.

Having it thus thoroughly exposed to view and easily accessible to my instruments, I perform my incisions and excisions and insert the stitches next. I allow the womb to fall back into position and after having washed out the vagina with a solution of carbolic acid, I sometimes apply a cotton tampon to prevent soiling of the undercloths, in case there should be any little oozing of blood.

I allow patients to walk about the room after this operation and instruct them to act in every particular, as if they were enjoying perfect health. The hemorrhage during this operation has never been very profuse and we need not anticipate any danger from this accident, since we can control it instantly by means of a suture thrown round the bleeding point. I believe that the deaths from hemorrhage, that have been observed by some operators, were always of a secondary nature, occurring in the absence of the surgeon on account of the loosening of a clot or a slough. Dangerous complications may arise in course of these cases if acute metritis or perimetritis and cystitis set in. It is my opinion that these complications only arose where septic or unclean instruments had been used. Acting upon this suggestion, they may be avoided by attending to cleanliness and antiseptics,

I will not weary the Society by giving a detailed account of my cases, which would be rather monotonous. Since December, 1877, I have operated upon seventeen cases of endocervicitis accompanied with sterility, in the manner described, and I am able to give you the results of fourteen cases, the three last being of too recent occurrence for relation. Drs. Barker, Bock, Hawk, Castelhun, Wichman, Laidley, Neumüller and others were my assistants in the operations. Out of the fourteen cases, five have since become pregnant, three of which have been delivered, two are still pregnant, one five months and the other three months. Of this number two had been barren in married life between six and seven years, one was five years married and the others between two and four years. The other remaining nine cases are still childless, but were entirely cured of their leucorrhœa, the sterility being evidently based upon some other cause.

SATURDAY, MARCH 13TH, 1880.

A Remarkable Descent of Congenital Cataract, Running Through Four Generations, and Showing Fifteen Cases in the History of a Single Family. By A. D. Williams, M. D.,

I operated to-day on a man æt. 36, from Western Missouri, for congenital cataract. He is a Methodist minister by profession. He has been blind all his life; never attended school. There is nothing peculiar about the case nor about the operation. I report the case on account of the interesting family history, which shows that congenital cataract, or congenital disease of the lenses, may descend from father to child through many generations, and certainly indefinitely, if not forever. This man's grandfather was blind from congenital cataract and had four blind children and some not blind. The patient's father was one of the four blind, and had five children, two blind. The patient is one of these two, and has four children, three of whom are blind and are now inmates of the blind asylum in this city. One uncle had seven children, three of whom were blind. One aunt had two blind children.

This is all the patient knows of the family history. This, as he gives it, shows that the disease has run through four generations, and fifteen cases of congenital blindness have occurred. Most likely there are other cases in the family history, if the full history was known. The grandfather lived and raised his family in North Carolina.

This is the most striking instance of hereditary disease of the eye that has come to my knowledge. For that reason I wish it to go upon record. In this connection the question might come up whether it would not be good State policy to prohibit legally all persons, blind of congenital cataract, from marrying and bringing into the world families, some of whom at least would have to be educated and cared for at public expense.

DR. POLLAK—There are very few cases of congenital blindness to be found in institutions for the blind. In our institution I do not know of more than four or five cases of congenital blindness during a period of more than thirty years. I have also visited almost every institution for the blind in the world, and I know it is a very rare thing. Almost all the cases admitted into

such institutions are cases of blindness the result of injury or disease. In regard to Dr. Williams' interesting case, I will say still more, that I have never known of an instance of intermarriage of the blind resulting in blindness in the offspring, not even marriages where both persons were blind. But in these cases blindness was always the result of disease or injury. In marriages where one or both of the parties are afflicted by congenital blindness I can readily understand that it might be inherited.

DR. WILLIAMS said that he was confident that the statements of the parties in the case were entirely reliable.

DR. DUDLEY referred to the fact that a visitor of the Society, Dr. Rany, of Colorado, who was seated near him, stated that he had been acquainted with a family of the name of Wells, some ten or fifteen years ago, several of whom were blind.

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Editorial.

INCREASED SUBSCRIPTION RATES.

In our "Editorial Notes" of the last issue we stated that on the twenty-fifth of this month we would charge \$4.00 per annum for the JOURNAL, commencing with January, 1880, but that those of our subscribers who had paid or would pay \$3.00 previous to that date, would receive the JOURNAL for the year. We are sorry to increase the subscription price, but the advance of paper to nearly 100 per cent. compels us to do this, or decrease the size of our JOURNAL—which is now *sixteen pages* larger each month than any \$4.00 medical periodical in the country—but the demand for space is so great that we dare not do so.

A RECENT PHYSICAL DISCOVERY.

Although this subject is not allied to medicine yet because it contains information that will be of interest to our readers we are induced to give it a place. We think that those who read it

will require no apology from us. We are indebted to the *Frei-ducker* for the article, of which the following is a synopsis :

A recent physical discovery has been made the subject of extensive discussion in scientific circles. Not long since we had the news that Edison had invented an electric light, developed in a vacuum. During the last few days William Crookes exhibited in Paris so-called "beaming matter" in a glass globe deprived of air and this demonstration astonished scientific circles. Crookes is the English scientist, who discovered the radiometer. He supposed that the motion in this was due to the vibrations of the contained ether; but, upon continued investigation, found that the small particles or the molecules of the remaining air, were acted upon by heat, produced it. He studied the subject still further and has been finally enabled to show the world the presence of "beaming matter." This name was originally applied by Faraday, who seeing the remarkable changes produced in bodies which turn from a solid to a liquid and from a liquid to a gaseous state, supposed that a fourth state existed. This had been purely hypothetical until Crookes proved its existence.

Admiral Mouchez had invited some four hundred persons, amongst whom were the most learned *savants* of France, to witness the experiment. As the papers expressed it, this experiment produced a profound "sensation." Crookes exhausted the air of a glass globe as far as practicable and found that but one millioneth part of the original volume remained. By this means a large number of molecules became freed from each other and immediately began to move about energetically. In order to direct these movements and ensure their greatest rapidity, Crookes conducted an electric current through the globe. Instantly a "bombardment" of molecules took place, and whenever the glass walls of the globe were struck, a flash ensued, similar to sea-phosphorescence. If diamonds or rubies were placed in the stream, a wonderful glow, with an intense color arose. A diamond intensified the light, rendering it of a deep green hue; a bright red ruby gave a light of a red, so magnificent, that all confessed to never having seen its equal.

. This impinging of molecules has not only a light, but also a force producing power; for, if the stream is directed against the sails of a small paper wind-mill, they immediately begin to move. The direction of the stream can be changed and brought to any point within the globe by means of a magnet. If the current

of the stream be broken, heat developed. Crookes permitted it to be interrupted by a peculiar lens and *fused platinum*. This is a wonderful discovery, that air brought to a high degree of attenuation, can have the power of melting the most infusible of metals.

This discovery of Crookes reminds us forcibly of Edison's lamp. Here also, an electric current is conducted into a glass globe exhausted of its air and made to pass through a horseshoe of carbonized paper. We leave for the more learned, the task of investigating the relationships existing between the discoveries of the American and of the Englishman, if any such relationships exist.

STATE MEDICAL SOCIETIES.

During the present month, the following States will hold their annual meeting:

April 6.—Tennessee, at Knoxville.

April 7.—Mississippi, at Vicksburg.

April 13.—Alabama, at Huntsville.

April 20.—South Carolina, at Columbia.

April 21.—California, at San Francisco.

April 26.—Georgia, at Augusta.

LINTON DISTRICT MEDICAL SOCIETY.

The ninth annual meeting of the Linton District Medical Association will be held in the city of Mexico, on Tuesday, the 13th day of April, 1880. The following named gentlemen will read essays upon subjects opposite their names: Dr. George Hamilton, "Dyspepsia;" Dr. A. W. McAlister, "Practical Hints in the Operation and Cure of Fistula;" Dr. B. H. Clark, "Menopause;" Dr. W. B. DeJarnett, "Displacement of the Uterus—Pathology and Treatment;" Dr. W. A. McCallister, "Inflammation In and Around the Larynx;" Dr. W. W. Rodman, "Keratitis;" Dr. J. F. Graves, "Diseases of the Prostate Gland;" Dr. S. T. Buck, "Diseases of the Rectum;" Dr. T. J. Baskett, "Injuries of the Cranium and their Effects;" Dr. D. F. Mitchell, "Rheumatism." A large attendance and a successful meeting is confidently predicted. Address all communications to Pinkney French, M. D., Secretary, Mexico, Mo.

Books and Pamphlets Received.

A Plea for Cold Climates in the treatment of Pulmonary Consumption. Minnesota as a Health Resort. By Talbot Jones, M. D., of St. Paul, Minnesota. [Reprinted from the *New York Medical Journal*, Sept., 1879.] New York 1879.

Therapeutic Action of Mercury. Inaugural Thesis read before the Chicago Biological Society, February 4th, 1880. By S. V. Clevenger, M. D., Chicago Illinois. Reprinted from the *Chicago Medical Gazette*, Feb. 20, 1880. [Chicago, 1880.]

Reflections upon the History and Progress of the Surgical treatment of Wounds and Inflammations. A report on the progress of Surgery. By Edward Borck, M. D. Read before the Missouri State Medical Association, at Columbia, Mo. June 1879. [Reprinted from the transactions.] Saint Louis, 1880.

External Rectotomy as a Substitute for Lumbar Colotomy in the Treatment of Stricture of the Rectum. By Charles B. Kelsey, M. D. [Reprinted from the *New York Medical Journal*, March 1880.] New York: D. Appleton & Co. 1880.

Report of the East Side Infirmary, for fistula and other diseases of the Rectum. Dispensary Building, 804 East Broadway, New York. Incorporated 1879. New York 1879.

The Principles and Practice of Gynæcology. By Thomas Addis Emmet, M. D. Second Edition thoroughly revised, with one hundred and thirty-five illustrations. pp. 875, 8 vo. [Philadelphia, Henry C. Lea. 1880.] For sale by Hugh R. Hildreth Pub. Co., 407 N. 4th St., St. Louis.

The Essentials of Anatomy. Designed as a Text-book for Students and as a Book of easy Reference for the Practitioner. By William Darling, M. D. F. R. C. S., and Ambrose L. Ranney, A. M., M. D. pp. 629. 8 vo. for Sale by Hugh R. Hildreth Printing Co., 407 N. 4th St., St. Louis Mo. [New York: G. P. Putman's Sons. 1880.]

Lectures on the Human Eye, in its Normal and Pathological Conditions. By Adolf Alt, M. D., with 95 illustrations, by the Author. pp. 208. 8 vo. For sale by Hugh R. Hildreth Printing Co., 407 N. 4th St., St. Louis Mo. [New York: G. P. Putman's Sons. 1880.]

Mansill's Almanac of Planetary Meteorology and System of

Science. By Richard Mansill. Price 50 cents. R. Crampton, Publisher, Rock Island, Ills.

Pharmacology and Therapeutics ; or Medicine Past and Present. The Goulstonian Lectures Delivered Before the Royal College of Physicians in 1877. By T. Lander Brunton, M. D., pp. 212. 16 mo. Macmillan & Co., London. 1880.]

Skin Disease, including their Definition, Symptoms, Diagnosis, Prognosis, Morbid Anatomy and Treatment. A Manual for Students and Practitioners. By Malcolm Morris, joint Lecturer on Dermatology at St. Mary's Hospital Medical School and formerly Clinical Assistant, Hospital for Diseases of the Skin, Stamford Street, Blackfriars. With illustrations. pp. 320. 16 mo. [Philadelphia: Henry C. Lea. 1880.]

The Hair: its Growth, Care, Diseases and Treatment. By C. Henri Leonard, M. A., M. D. Illustrated by one hundred and sixteen Engravings. pp. 316, large 16 mo. [Detroit: C. Henri Leonard, Medical Book Publisher. 1880]

Address in Medicine, Emotional Fever. By Andrew Fleming, M. D., Pittsburgh, Pa. [Philadelphia, 1879.]

The Extirpation of the Ovaries for some of the Disorders of Menstrual Life. By William Goodell, A. M., M. D., [Philadelphia, 1879.]

Montreal General Hospital ; Reports, Clinical and Pathological. By the Medical Staff. Edited by William Osler, M. D., M. R. C. P., London, vol. 1, pp. 369. [Montreal: Dawson Bros., Publishers, 1880.]

Strangulated Hernia, with Fecal Fistula, Treated by a new and Simple Enterotome and an Anaplastic Operation. By William A. Byrd, M. D., of Quincy, Ill. [Reprinted from the "Medical and Surgical Reporter," of October 25, 1879.]

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—MARCH, 1880.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	24.5	41.0	18	32.0	53.0
2	33.5	58.0	19	35.5	54.0
3	41.0	71.5	20	37.5	52.5
4	54.0	67.5	21	34.0	55.5
5	42.5	52.5	22	38.5	59.0
6	39.5	50.5	23	43.0	66.0
7	43.0	47.5	24	35.0	53.5
8	28.5	47.0	25	40.5	57.0
9	36.0	54.5	26	48.0	60.0
10	32.5	37.0	27	46.5	64.0
11	34.0	45.0	28	41.0	49.5
12	29.0	34.0	29	38.0	55.0
13	28.0	34.5	30	39.0	63.0
14	26.0	31.0	31	43.5	56.5
15	25.0	39.5			
16	23.0	33.0	Means	36.0	50.9
17	24.0	40.5	Monthly Mean	43.4	

Quantity of rain, 2.71 inches.

MORTALITY REPORT.—CITY OF ST. LOUIS.

FROM FEBRUARY 22, 1880, TO MARCH 27, 1880, INCLUSIVE.

Ovarian Tumor....	1	Exhaust. 1'm Lab.	0	Convulsions & Trismus Neonatorum	57	Placenta Prævia...	0
Measles.....	5	Eruption. Want of	0	Hydrocephalus and	4	Apoplexy.....	6
Syphilis.....	2	Breast Milk, etc.	10	Tub. Meningitis.	4	Cyanosis and At-	
Scurvy.....	1	Alcoholism.....	2	Meningitis & En-	8	electasis.....	
Pyæmia & Septicæ	5	Rheumatism & Gout	3	cephalitis.....	8	Premature Birth	0
Erysipelas.....	5	Cancer and Malignant	8	Other Diseases of	12	Deaths by suicide	6
Diphtheria.....	11	Tumor.....	8	the Brain and	12	Deaths by Accident	12
Membran's Croup	3	Phthisis & Tubercu-	65	Nervous System	11	Deaths by Homicide	1
Whooping Cough	17	losis, Pulmon.....	65	Cirrhosis of Liver	9	Congen Deformity	13
Diabetes Mellitus	1	Bronchitis.....	12	and Hepatitis...	9	Total Deaths from	
Umbilical Hernia	2	Scarlott.....	15	Enteritis, Gastro-	29	all Causes.....	465
Typhoid Fever.....	6	Pneumonia.....	74	tonitis, and Gas-	29	Total Zymotic Dis-	98
Cerebro Spinal Fe.	1	Heart Diseases.....	15	tritis.....	29	easees.....	100
Remittent, Inter-	1	Other Diseases of	16	Bright's Disease	2	Total Local Dis-	
mittent, Typho-		Respir'y Organs	16	and Nephritis...	2	eases.....	221
mal, Congestive & Simple		Rupture of Womb	1	Other Diseases of	1	Total Develop'tal	
Contin'd Fevers...	9	Marasmus—Tubes	21	Urinary Organs.	1	Diseases.....	29
Puerperal Fevers...	4	Mesenterica and	0	Atheroma Arta...	0	Deaths by Violence	19
Diarrhœal Diseases	14	Scrofula.....	21				
		Aneurism.....	0				

CHAS. W. FRANCIS, Health Commissioner.

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Original Contributions.

ARTICLE XII.

AN IMPROVED METHOD OF INJECTING THE HERNIAL RINGS FOR THE RADICAL CURE OF RUPTURE WITH IMPROVED MIXTURE AND A DESCRIPTION OF A NEW INSTRUMENT.* By JOSEPH H. WARREN, M. D., of Boston, Mass., U. S. A. Member of the American Medical Association. Member of the Mass. Medical Society. Member of Boston Natural History Society. Honorary Member of Otsego County Medical Society, N. Y. Formerly Brigade Surgeon and Medical Director in U. S. A., of Vol. Formerly Lecturer on Theory and Practice of Medicine and Professor of Anatomy and Physiology in National Medical College of Columbia College, D. C.; Formerly Member of Boston Gynæcological Society, etc.

This paper was written to be read before the New York County Medical Society, on the 28th of October, 1879; but owing to illness from a cold, I did not read it as I intended at that time, and knowing no better way for making amends to the

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honorable body of gentlemen, composing this society, I present this paper to them, and the profession at large through your very estimable and extensively circulating journal.

Hoping that this will be received by the Fellows as ample apology, I would here take the liberty of expressing at this time my most sincere thanks to the distinguished profession of New York and Boston, as well as to the profession generally in this Country and Europe, for their kind criticisms and consideration of me in presenting my imperfect papers on hernia, which are given while engaged with many cares incident to an active professional life.

In presenting this paper, I wish to say that in giving my new instrument and method to the profession, that I do not wish to detract any credit from the late Dr. Geo. Heaton, of Boston, nor underestimate his valuable work on rupture, or the great labor and pains of his late co-editor, the refined and scholarly Dr. Davenport.

On the contrary, I look up to Dr. Heaton, not only as my former master and instructor in this operation, but as one from whom I gained all my inspiration for my present and future efforts in developing and demonstrating this, as yet, as I feel, imperfect operation on hernia. To Dr. George Heaton, will always belong the honor of first injecting the hernial rings with fluid extract of oak bark, *quercus alba*, for the radical cure of rupture, if he was not the first to inject hypodermically. I have some doubts upon the matter, but hope to ascertain beyond a possible doubt with the assistance of his family and others hereafter.

I am, as will be seen, working over the field of operation of hernia, trying to perfect and improve any deficiencies which I find in the treatment by injections, and it will be my greatest desire to be candid and truthful in all that I do and present to my medical brethren; and may I not hope with their kind assistance to accomplish much in this operation, which does not as yet seem to be fully understood by the profession or appreciated as it properly should be.

The following is a short description of my new syringe and instrument for injecting the hernial rings in the radical cure of hernia :



The instrument here figured consists of a barrel, *A*, holding about sixty minims. This barrel is of glass, accurately fitted within a cylinder of silver, which is fenestrated with two openings to present a view of the barrel and its contents. The barrel is graduated, each degree indicating ten minims. The piston, *B*, works by a spring, *C*, very tightly within this tube, so as to exclude all air possible. The lower end, *D*, of the piston is slightly concaved. At the bottom of the interior of the glass barrel there is a ring, one-eighth of an inch in thickness, made of soft rubber, for an air chamber, with a hole in its center for the exit of the fluid.

On the lower exterior end of the barrel will be seen a convenient semi-circular handle, with the concave side roughened to give a firm hold for the finger and thumb of the operator. In the handle, the one grasped by the thumb is the spring, *c*, controlling both the piston, *B*, and a valve, *G*. We thus have perfect management, both of the amount of the fluid to be injected, and of the time when it shall be injected.

The valve, *G*, is situated just below the bottom of the barrel and rubber chamber, and is opened and shut by pressure on the lever, *c*. Below this valve is a diamond, or other hard stone, concaved to fit exactly the convex head of the needle which plays upon it.

The needles are flattish, oval in shape, and are twisted throughout their entire length. They are of three sizes. No. 1 is one and a quarter inches in length, size two and a half Amer. scale; No. 2 is one and three-eighths in length, size two and three-quarters, Amer. scale; No. 3 is one and a half inches in length, and size three. It should be remembered that, from their peculiar form and twist, they make an incision only about one-half the size of round needles which measure the same on the scale. The twist of the needles also varies. No. 1 is twisted to revolve once in penetrating one-fourth of an inch. No. 2 once in penetrating one-half an inch, and No. 3 once in penetrating three-quarters of an inch. I use No. 1 in operations on umbilical hernia and other herniæ where the tissues are thin. It is therefore small, and has a quick twist because it is necessary that the needle in penetrating should make a full revolution, so as to distribute the fluid on the parts to be irritated by the injection. No. 2 is for use in operating on the majority of small and recent herniæ. No. 3 is for use on large and long-standing ruptures, where the needle must traverse tis-

sue generally much thicker than in the other cases mentioned, and often surrounded by adipose deposit. I wish to say just here that the same principle of the twist can be applied to all trocars, aspirating needles, male and female catheters, tracheotomy tubes, canulas for injecting fistula in ano, and to sounds and dilators for stricture of the urethra and uterus. I may say, too, that these instruments thus improved can be obtained of the same manufacturer who makes this instrument for the radical cure of hernia. The needle has a round shank, playing through a collar, *H*, which is attached by a screw thread to the neck of the barrel.

I have said that there was a rubber cushion at the bottom of the glass tube, *A*. This cushion remedies the defect common to hypodermic, as well as all other syringes, for it forms an air chamber which arrests the passage out of any air that may be in the barrel, and there is always more or less, and this would be injected with the fluid. It also acts very effectually in stopping the farther action of the piston after all the fluid has been injected.

The method of using the instrument is as follows: With the valve, *G*, closed, the needle is inserted in the fluid to be used. The valve is now opened by slight pressure upon the lever, *c*. The pressure being continued, the piston can be retracted and the barrel will be consequently filled with the fluid. The valve is then allowed to close, and the instrument is charged for use.

Having selected the most suitable point over the rings to be injected, we now thrust the needle slowly and gently, but at the same time firmly, through the integuments. During this act the needle revolves because of its twisted form. As soon as it has passed through the integuments, pressure is made upon the spring, *c*, which opens the valve, *G*, and allows the fluid in the barrel to flow as slowly and in such quantity as the operator may in any given case think necessary. The quantity used can, of course, always be known by the engraved scale on the barrel.

ANATOMY OF FEMORAL AND INGUINAL HERNIA.

We find the following to be the anatomy of the parts where the seat of the operation is.

The inguinal or spermatic canal begins at the internal abdominal ring, its length being about one and a half inches. It serves for passage of the spermatic cord in the male and the round ligament with its vessels in the female. Its boundaries are:

In front—Tendon of external oblique muscle, lower border of internal oblique and a small portion of the cremaster muscle.

Behind—Fascia transversalis, conjoined tendon of internal

oblique and transversalis muscles, and the triangular fascia.

Above—Arched border of transversalis muscle.

Below—Poupart's ligament.

The inguinal canal is of great surgical importance on account of its being the channel through which inguinal hernia escapes from the abdomen. Inguinal herniæ are of two kinds, oblique and direct. The former enters the inguinal canal through the internal abdominal ring, passing obliquely along the canal and through the external ring to descend into the scrotum. Direct inguinal hernia escapes from the abdomen at Hesselbach's triangle and passes through the external ring.

Hesselbach's triangle is situated at the lower part of the abdominal wall on either side. Its boundaries are:

Externally—Epigastric artery.

Internally—Outer margin of rectus.

Below—Poupart's ligament.

The following are the coverings of the two varieties of inguinal hernia, commencing at the surface:

OBLIQUE.

1. Skin.
2. Superficial fascia.
3. Intercolumnar fascia.
4. Cremaster muscles.
5. Fascia transversalis.
6. Sub-serous cellular tissue.
7. Peritoneum.

DIRECT.

1. Skin.
2. Superficial fascia.
3. Intercolumnar fascia.
4. Conjoined tendon of internal oblique and transversalis muscles.
5. Fascia transversalis.
6. Sub-serous cellular tissue.
7. Peritoneum.

FEMORAL HERNIA.

The crural or femoral canal is a funnel shaped interval which exists within the femoral sheath between its inner walls and the

femoral vein and is the space into which the sac of femoral hernia is protruded. It is limited above by the crural or femoral ring and is lost below by the adhesion of the sheath to the coats of the vessels. In the normal state, the canal is occupied by loose cellular tissue and numerous lymphatic vessels which perforate the cribriform fascia covering the saphenous opening in the fascia-lata and the walls of the sheath to reach a lymphatic gland situated at the crural ring. This gland is retained in its position by a thin layer of sub-serous cellular tissue—septum crurale—which together with the peritoneum separates the canal from the abdominal cavity. The crural ring is the point where femoral hernia leaves the abdomen, and is the most frequent seat of strangulation. Its boundaries are:

In front—Poupart's ligament.

Behind—Ileo-pectineal line, and body of pubic bone.

Externally—Femoral vein.

Internally—The sharp margin of Gimbernat's ligament.

The coverings of femoral hernia commencing at the surface are:

1. Skin.
2. Superficial fascia.
3. Cribriform fascia.
4. Femoral sheath or fascia propria.
5. Septum crurale or sub-serous cellular tissue.
6. Peritoneum.

POSITION FOR OPERATION IN THE RADICAL CURE OF HERNIA.

I usually perform this operation on a table made of white-wood, for the sake of lightness, about six feet long and one foot wide. It is supported by three pairs of legs which at the foot are two feet four inches high and at the head two feet high, while the central ones are nineteen inches high. These legs diverge from the middle line of the table to give the greatest possible stability.

There are four leaves attached to the top of the table, two on either side; that is, each leaf is about three feet long and six inches wide. The two leaves at the head of the table are spread open for the patient to lie upon, while the two at the foot are allowed to hang at the sides of the table. On these latter leaves

is placed a foot-rest for the patient, so that his limbs may be in a proper position for a convenient operation. These leaves as well as the legs are hinged to fold up and are properly braced to be held in position during the operation.

The table has in its center and about three feet from the lower end, an oval opening six inches in diameter, around which the surface has been bevelled to fit accurately the patient's sacrum and hips.

The table being first covered with sheets or blankets, or, if necessary, a rubber cloth, the patient is laid upon it with the head upon the lower end of the table. In this position the spine partakes of the curvature of the table top, the pelvis and hips being elevated.

If desired, a small pillow can be laid under the head so as not to elevate the shoulders unduly. The patient is now in position for the operation in umbilical, inguinal and femoral herniæ, a position clearly the most favorable for the entire relaxation of the spinal, abdominal and limb muscles. The herniæ may now be returned within the abdominal cavity, where they will remain on account of the position of the patient, and can be at once operated upon.

This table can also be used in the treatment of uterine diseases and for operations on the anus, by placing a staff at the foot or highest end of the inclined top on which to suspend a fountain syringe, bucket or other vessel. The patient will be found to lie on this table in the very best possible position for the treatment of such cases on account of the concavity of the table from head to foot, and the circular orifice will allow all overflow to escape, thus keeping the patient clean and dry.

I now prefer and use the Goodwin invalid bedstead in my operations in place of this table, as I find it better adapted and much more convenient while operating, and the patient is not obliged to be moved afterwards till able to be up again, and the desired elevation can be attained, as the foot and head can be lowered or raised to any height and firmly remain so as long as we wish by the means of a canvas bottom that is pierced with a hole so that the bed pan can be used without any trouble for all the calls of nature.

OPERATION FOR INGUINAL HERNIA.

The patient is first placed upon this table, or, if the table be not at hand, upon a bed, in which case the hips should be ele-

vated by a pillow, whilst the head and shoulders should be allowed to fall somewhat lower in order to produce a slight curvature of the spine and a relaxation of the abdominal muscles.

If a bed is used, the legs of the patient should now be drawn up, but if the table is used this same position is gained by the foot-rest below the surface of the table.

The patient being thus in a relaxed yet firm position, we seek the hernia to be operated upon and, after reducing the protruded intestinal sac and omentum by taxis, we pass the left middle finger up the spermatic canal until we come to the inguinal ring, and by slightly raising the end of the middle finger as above mentioned, the same is felt by the fore finger, which also helps us to indicate the exact point, and guide to insert the point of the instrument. Having ascertained that the ring is well open and free from attachments or adhesions to the returned sac, we begin to insert the needle at the lower portion of the ring, where we feel its edges through the abdominal parietes.

The needle should always enter this lower portion of the ring, as in passing obliquely upwards and backwards it is less likely to wound either column of the internal ring. Great care should be taken in inserting it through the integuments and superficial fascia, so as not to wound the external pillar but to enter the canal at once. The needle then should never be passed in a perpendicular direction, as there is thus danger of wounding the spermatic cord, but it should receive the necessary obliquity as soon as we feel that it has passed through the integuments. We can diagnose the position of the needle when first entering, by passing the left fore or little finger up with the invaginated scrotum upon it. When we have passed the needle through the integuments, we begin to open the valve and slowly push the needle in the direction already indicated. As the needle is thus inserted, it revolves and injects the fluid in sufficient quantities to cover well the external and internal rings. The needle is now slowly withdrawn, still injecting fluid in its backward motion. As soon as the needle is withdrawn, pressure is made with the end of the fingers over the wound and rings for five or ten minutes, until the smarting and throbbing pain subsides.

Now a pad about three by four inches and three quarters in thickness is made by folding a linen napkin once or more. This pad should be immersed in cold water and applied, gentle pressure being at the same time constantly exerted until the

bandage, which should be double and three or four inches wide, is passed round the body and firmly secured by pinning. This bandage should be kept from slipping upward by two perineal bands beginning at the crests of the ileum and pinned near the symphysis pubis in front.

The patient is now placed in bed with his legs side by side, and should remain upon his back in this position from twenty-four to forty-eight hours. He should not be allowed to rise in voiding urine or attending to other calls of nature, but the bedpan should be used for such natural calls.

OPERATION FOR FEMORAL HERNIÆ.*

Same position of the patient as above. Having ascertained by diagnosis whether the hernia be femoral or inguinal, that is, having found the relation the hernia bears to Poupart's ligament (femoral herniæ lying below this ligament and inguinal herniæ above), and having selected the position of the saphenous opening to which we are easily guided by, if the femoral hernia has emerged from the femoral canal, the operation is performed in a manner similar to that in inguinal hernia.

This saphenous opening we can usually locate by pressure in the thigh below Poupart's ligament and about three-quarters of an inch to the inner side of the femoral artery. Over it usually lies a lymphatic gland, which is much enlarged if a truss has been worn.

In most cases the sharp edges of the falciform process or fascialata which may be thickened and hypertrophied from friction. This is formed by friction of the truss and the hernia and forms our landmark, for its curve is peculiar and not readily mistakable in making our definition.

The hernia having now been reduced and the forefinger pressed against the outer edge of the falciform process, the needle of the instrument is inserted into the canal just above the saphenous vein and on the inner side of the femoral vein, which is held to one side by the finger, care being taken not to forget the femoral vein that often lies posterior to the hernial membrane. The needle thus enters the femoral canal external to the hernial membrane.

The irritation applied to the crural ring should be slight, as femoral hernia will not require so much of an irritant as an in-

* For similar description see Heaton, by Davenport, on Rupture.

guinal one of nearly the same size. The pad and bandage is applied similarly to those in inguinal hernia.

Of all hernia, femoral are the most difficult to cure by this operation, especially in females, as they require the utmost skill and care on the part of the operator, because of the extreme length of the ligaments which make up the crural ring, and because of the immediate relation of the femoral veins and arteries and because in large and long standing herniæ the sac is often ramified by branches of large veins and arteries, together with lymphatics.

OPERATION FOR UMBILICAL HERNIA.

From the ease of diagnosis these will not require any lengthy description. The patient is placed upon his back as in femoral hernia, except that the feet may be slightly elevated. The finest needle which revolves once in going one-half of an inch, is selected and passed to the center. As soon as it has penetrated the integuments we deliver the injection with some force upon the edges of the ring by throwing the valve wide open.

Care should be taken in this operation not to puncture the peritoneum. Where the integuments are very thin and the hernia small, as in children, the hernial rings should be seized with a pair of dressing forceps and elevated while the needle is passing through them. In extreme and old herniæ of this kind, two or even three points may be selected for injecting the irritant. This is necessary in cases of extreme size in order that the liquid may bathe the edges of this enlarged umbilical ring. The bandage and pressure is the same as in the other cases mentioned.

AFTER TREATMENT.

From six to eight hours after the injection, an increase of temperature, slight increase of pulse and a feverish condition showing a slight constitutional disturbance will set in and continue usually from three to four days when it will be found gradually to subside. The patient should have a light liquid diet and unless otherwise indicated should have cold water constantly applied by means of a compress, from beginning to end. Morphine or some other anodyne can be administered to secure quiet. The bowels should not be moved if possible until the sixth or seventh day, and then by some gentle cathartic. Fluid as drink can be had *ad libitum* in the way of cold water, but no

stimulants of any kind except under the utmost urgency, and on no account is tobacco to be used.

This treatment should be continued for at least a week or ten days, the patient lying in bed and as much as possible upon his back. The first four days he should remain constantly upon the back, as any other position might injure the process of adhesion of the rings caused by the irritant.

This is an operation which, if it should not be successful, has put the patient to but little pain, inconvenience or danger; and should we not fully succeed we have not left our patient worse than we found him, as there is always a partial if not a full occlusion of the rings, and so if we do not fully close them we have somewhat benefitted the patient. This cannot be said of many other operations performed for the relief of hernia.

It now, perhaps, would not be out of place to consider the various kinds of hernia which would promise the most favorable results from this operation :

Congenital herniæ of all kinds in children from five to twenty years of age are very favorably and almost effectually cured by this operation. No child under four years of age should undergo this operation except in extreme cases.

Herniæ, caused by accidents, when of short duration, even when quite large, are very effectually and generally cured by this operation.

Herniæ that have been caused by over-exertion such as convulsions, child-bearing and the like, and which have existed over twenty years, can also be generally cured, requiring, however, more than one injection usually. The longer their duration and extent the more liable are we to be obliged to perform repeated injections in order to fully close the ring.

Congenital hernia of large size and long standing are difficult to successfully relieve and cure, unless we make several injections, although I operated this summer on a double congenital hernia (inguinal), one ring being two inches in diameter and the other one and a half inches. The one was fully closed with the primary operation and the larger opening was closed by two injections. At the time of operating, the patient told me his hernia had existed for eighteen years, but after he was cured he informed me that his mother said that he was born ruptured, he being at this time upwards of forty years old.

I speak of this to show what this operation is capable of

doing. This patient was formerly not able to retain the hernia on one side, it being so large, and the rings being so thin and the integuments so dilated that it would bulge out over the support which he was obliged to wear constantly. Yet the bowels of this patient are, to-day, retained within the abdomen, and he is very comfortable, although as a precautionary measure he is to wear for a year or more, as may be necessary, a very delicate and soft French spring truss of Tiemann's importation or manufacture. From such results as these I have astonished myself, perhaps, more than anyone else, as previous to my experiments and trials of the operation I could not believe that it was possible to produce such favorable results.

In performing this operation it is not desirable to use ether, as it is apt to excite vomiting, and I only resort to it with the very timid and sensitive. It will be found more necessary to etherize in children and women than in men, to overcome their fear rather than from any pain they would experience in the operation.

Chloral hydrate may be given a few hours before the operation with almost as good results as those obtained from ether, producing sleep and freedom from pain and fear.

Great care also should be taken not to allow the patient to stand upon his feet too soon, as from past experience I am convinced that very few cases which have needed a second operation after they have, in the opinion of the physician and the patient himself, completely healed, would have required a repetition of the injection, had they been more prudent and been content to remain quiet a little longer. Do not be too anxious, then, to see the results of the operation, but let nature take her time in occluding the rings.

Moreover, when we allow the patient to stand upon his feet for the first time, we should support the injected parts with the tips of the fingers, and on no condition remove this support while he is standing. He should not be allowed to cough, bear down, or make any undue exertions for two or three months, at least.

ARTICLE XIII.

MICROSCOPIC EXAMINATION OF THE BLOOD IN THE LIVING PERSON.

By F. B. TIFFANY, M. D., of Kansas City, Mo.

EDITOR JOURNAL:—A few months ago I conceived the idea of examining microscopically the blood, as well as other tissues of my patients, *in situ*. It occurred to me, from obvious reasons, that the prepuce was the part for *such examinations*. I then, with the assistance of Dr. R. Wood Brown, of this city, constructed an instrument for holding the prepuce in such a position as would render the examinations *very satisfactory*. The instrument, as represented in the accompanying cut (see Fig. 10)

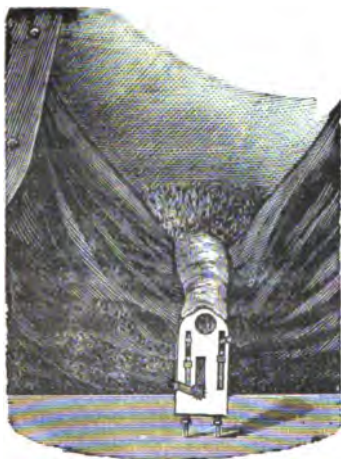


Fig. 10.—Clamp for making the foreskin tense. This clamp is placed on the stage of the microscope. (Taken from a photograph.)

consists of a thin piece of celluloid, wood, or some other light substance, with clamps projecting from the under side, which fasten on each side of the lower half of the foreskin, which, by means of the thumbscrews at the free end of the instrument, render the foreskin tense both laterally and longitudinally. Near the attached end of the instrument is a circular opening about three-quarters of an inch in diameter, under which is fastened a thin cover-glass, so that the mucous membrane of the lower half of the prepuce lies in contact with the cover-glass.

In this position, with the prepucce spread out nearly as thin as the web of a frog's foot, it is clamped upon the stage of the microscope (see Fig. 11), and by transmitted light can be examined by the highest powers.



Fig. 11.—Showing the clamp on the stage of the microscope, ready for examination. (Taken from a photograph.)

In order to see the circulation of the blood, it is necessary to select a vessel which is immediately beneath the mucous membrane, and that it be pressed quite firmly against the thin cover-glass. The mucous membrane, the sub-mucous and areola tissues are *beautifully* seen, even with the lower powers.

During the several months in which my attention has been given to this subject, I have examined several patients; but, having no status as a guide, I have scarcely been able to determine whether what was seen were normal or abnormal. In some of the cases which were syphilitic I noticed in the areola tissue broken down, degenerated, fibrous material, which I suppose to be what Prof. Virchow terms *gummata*, or syphilitic deposits, and on subsequent examinations of the same patients under anti-syphilitic treatment, I have observed changes in the appearance of the tissues.

In my examinations in future, I propose to make drawings from time to time of what the microscope reveals, and hope to arrive at more definite knowledge. I feel from *even* this limited observation, that this method, if practiced, will prove a valuable means of making and confirming diagnosis of constitutional diseases; such as syphilis, small-pox, diphtheria, pyæmia, yellow fever, etc., as well as a means of observing therapeutically different medical agencies.

Sir, my object in presenting this subject, is to submit it to your, and to the consideration of the medical profession, through the JOURNAL, asking your and their assistance in furthering this mode of investigation. I shall be pleased to hear from any member of the profession who may have any criticisms or suggestions to make.

Reports on the Recent Progress of Medicine.

OBSTETRICS.

By WALTER COLES, M. D., Collaborator for the JOURNAL.

ANTISEPTIC MIDWIFERY.—Dr. Matthews Duncan, in a recent paper on this subject, presents many practical suggestions of value, a brief synopsis of which is contained in an admirable letter from Dr. J. M. Fothergill to the *Philadelphia Medical Times*. Dr. Duncan says truly that by far the most frequent of the causes of puerperal deaths are pyæmia and septicæmia. Both these diseases involve or imply inflammatory processes, and both are essentially septic; and it is against them that antiseptic midwifery wages war, and in which he said it had already achieved great success. His remarks were confined to the local use of antiseptics. He pointed out that the healthy lochial discharge of some women approached in smell the odor of putrefaction, so that it was not always possible to discriminate them; but in all doubtful cases it is well to treat them as if putrefactive, in order to prevent such discharges from finding their way into the blood through uterine sinuses or lymphatics, setting up blood poisoning. The removal of all putrefying material is essential to the prophylaxis or arrest of septicæmia. All measures to this end should be promptly and thoroughly applied. They consist in irrigation with carbolyzed water, and where it is necessary to pass the hand or instruments into the womb, they should in all cases be smeared with the ordinary carbolic acid and oil mixture. Dr. Duncan recommends an injection of the strength of one part in fifty, from one half to a pint being used at a time. He recommends a double canula to secure free return of the injected material. The injection should be gently introduced through a tube from a point above the patient. The running out should be carefully watched, and the moment the outflow ceases the injection should be stopped. He opposes the leaving of the intra-uterine tube *in utero* with a view to drainage, for if antiseptically plugged, it no longer acts as a drainage tube.

and not so plugged it is a source of danger in itself. He also warns against too frequent daily injections.

[It is held by many—and, as we think, correctly—that if the theory upon which Dr. Duncan rests his antiseptic treatment be true, then it would be difficult for us to carry irrigation too far in point of frequency, provided measures be adopted to secure the patient against annoyance. For it must be admitted that if active putrefaction is going on in the uterus, a washing out once or twice daily (although better than none) will fail to keep the lochia pure. The point is to prevent, as far as possible, the retention of any decomposing material in the uterine cavity. To secure this end, and at the same time guard against worrying inconvenience to the patient, an ingenious self-draining bed-pan has been recently constructed, and is for sale by Aloe & Hernstein, instrument makers in this city.]

VENEREAL DISEASES.

By LEGRAND ATWOOD, M. D., Collaborator for the JOURNAL.

The Deutscher Archiv. f. Klin. Med., xxiv., p. 250, says:—A sailor, aged 18, taken into the hospital at Altona on account of pain in the abdomen and feverish symptoms, developed in the hospital signs of secondary syphilis, which were treated with inunctions of quicksilver with success. Seven months later the patient returned to the hospital; mucous plaques were again found on the soft palate. Fever set in (temperature as high as 40.6 deg. C.) and repeated diarrhoea. Râles (partly crepitant) were heard in the lung, but never dullness. After the syphilitic symptoms had disappeared anew under the use of the iodide of potassium, they re-appeared later; a left-sided pleurisy occurred, and at the end of two months the patient died. At the post-mortem both lungs were found full of roughish white tumors of the size of a hen's egg. Near these marks, and on the inner side of them, peubroichitic thickenings were formed. Microscopical examination showed the tissue of the tumors to be that of a granulation tissue, with numerous spindle cells scattered through it, and free from giant cells. A gumma was found also in the liver.—*Henop. London Medical Record, January, 1880.*

ACQUIRED INFANTILE SYPHILIS.—(“De la Syphilis Infantile Acquisée,” par le Dr. Alfred Poutet; Delahaze, 1878.) Poutet, in the consideration of his subject, devotes special attention to the question regarding etiology and diagnosis. Under the title of “Accidental Syphilis,” he considers the results of contact with the nipple and breast, vaccination, infection by the medium of toilet articles, and contagion where there is ignorance. Under the title of “Intentional Syphilis,” are classed those cases which seem to result from a deplorable superstition, existing only in France, whereby it results that a female infant is infected directly from an adult. Syphilis may, however, be intentionally communicated from other motives. In proof of the communication of syphilis, two circumstances require consideration before arriving at a diagnosis. 1st. The existence of an indurated chancre, it matters not in what region of the body. 2d. The traces of a traumatism, more or less violent, with or without rupture of the hymen. The author is inclined to believe that tertiary manifestations are rare as the result of acquired infantile syphilis, the disease in such cases attacking organs which are in the phase of evolution, and which with greater readiness admit of its modification or elimination.—*The Obstetric Gazette*, January, 1880.

SYPHILITIC STRICTURE OF THE RECTUM.—The *London Medical Record*, December, 1879, says: In M. Gosselin's opinion, this kind of stricture is of an inflammatory nature, resulting from fibrous transformations of the sub-mucous cellular tissue, and perhaps also of the mucous membrane itself, following an inflammation of these strictures, having its origin in a rectitis caused by chancres of the anus. M. Gosselin calls this “syphilitic rectitis,” and also calls the stricture which is the consequence of it “syphilitic stricture,” but states that he does not, therefore, mean that it is dependent on the syphilitic diathesis, but simply that the origin of the rectitis is a chancre, causing inflammation of the anus, which inflammation afterwards extends into the interior of the bowel. As regards treatment, M. Gosselin, till lately, has been content simply to dilate, and in cases of narrow strictures of small extent, to notch them with a bistoury at several points. Now, however, he employs the treatment recommended by Verneuil, which consists in complete section of the strictured parts by Paquelin's cautery. By this means the

retention of feces and purulent matter above the stricture is prevented.—*Compend. Med. Science, Jan., 1880.*

TREATMENT OF THE MOTHER OF THE SYPHILITIC CHILD.—A late discussion (*Archives of Dermatology*) in the Lyons Medical Society disclosed the fact that the following opinions were held by members: 1. Healthy children can be procreated by diseased parents in the intervals of syphilitic recrudescences. 2. The syphilitic mother should always be made to suckle her child. 3. Mercurial treatment of the mother during pregnancy may give rise to an abortion, apart from the constitutional disease. 4. Mercurial treatment at such times is best conducted by the process of inunction.

ARTICULAR AFFECTIONS IN HEREDITARY SYPHILIS.—Knaak, of Bremen (*Archives of Dermatology*), claims that many of the joint disorders occurring in the early life of infants are explicable solely on the hypothesis of syphilis of the parents. The so-called tumor albus, with painful attempts at motion, which elicit loud cries, affects one or several joints. No one articulation remains swollen for more than a few days, and all the principal joints may suffer in turn. Frequently there are no other symptoms of syphilis, but sooner or later, in the majority of cases, these are declared.—*American Practitioner.*

At a recent session of the Medical Society of the State of New York, Dr. F. R. Sturgis read a paper on so-called "Galloping Syphilis," in which he discussed the causes that render cases liable to run a rapid course, described the symptoms of a typical case, and gave the treatment, which consisted in the use of large doses of iodide of potassium, mercury judiciously exhibited early and late, iodine, tonics, etc. These cases are seen especially among the intemperate, and among persons who have passed the middle period of life.—*The Medical Record, February, 1880.*

SYPHILITIC HERPES ZOSTER.—An eruption running round the left side of the chest was recognized by Mr. Johnathan Hutchinson as a case of syphilitic herpes zoster; a very rare affection. After existing nine months the eruption changed and approached to the character of rupia. The scars left behind were dusky, red and depressed.—*San Francisco Western Lancet, January, 1880.*

Translations.

FROM THE ITALIAN.

STORIA COMPENDIATA DELLA CHIRURGIA ITALIANA. DAL SUO PRINCIPIO FINO AL SECOLA XIX. Del Professore CARLO BURCI. [For the JOURNAL.] JOSEPH WORKMAN, M. D., Toronto, Canada, Translator.

COMPENDIATED HISTORY OF ITALIAN SURGERY—CONTINUED.

The 15th century passed over, and Italy, as Dezeimeris says, shone brilliantly from discoveries and from her men able in surgery; Germany and England began to move and every other part of Europe tardily went to work to rub off the mediæval rust. It appeared, therefore, that in Italy the re-birth of surgery in the 16th century had been anticipated, as had been that of medicine, by the work of Taddeo Alderotti, and that this honor could not in justice be denied to her. There were reasons why the primacy should belong to her; in every Italian university anatomical studies and discoveries in this fundamental branch of knowledge flourished; works were published by the great masters Giovanni de Vigo and Benedetti; surgery was preserved in the hands of physicians and doctors, and, therefore, did not fall into disrepute, as it did in France among the barbers; and finally the Greco-Latin direction, given to the study of the art, endowed it with that independence which Antonio Benivieni had endeavored to achieve for it. But, contrary to historical truth, and contrary even to the opinion of French historians, who were accurate in their search as to the progress of surgery in past ages, stands the judgment of one man of high authority—*Malgaigne*. This writer, in his introduction to the works of Ambrogio Pareo (the Ambrose Paré of the French), declares that in the second half of the 15th century Italy gave some sign of reform, but she accomplished nothing, and, in that period of time, Italy no longer had surgery ("*l'Italie n' avait plus de chirurgie*"), and that, having fallen from her high seat, she was long in rising again.

I, an Italian, and a cultivator of the art which I have for so

many years, with love, professed, and still profess, cannot submit to this accusal, and admit that in Italy, at the close of the 15th century, when Benivieni was near his death, surgery *was no longer*, and that, having fallen, she remained so a long time before she revived. Malgaigne, by this extinction of the light of Italian surgery, intended to render more brilliant the splendor of his idol, Ambrose Paré. But is it just to praise one by damaging others, and by violating truth? Who can deny that Ambrose Paré was the greatest surgeon of the 16th century? But what for that? Were his masters and predecessors in Italy, therefore, so minikin and so despicable as to warrant his eulogizer in saying that there was no surgery in Italy before he appeared? Who was master to Paré, in anatomy? Was it not Vidio Vidi, an Italian teacher in Paris, of whom the same Malgaigne says, "his lectures drew forth a prodigious eclat, and changed in some fashion the manner in which surgery was regarded in France?" Was it not Malgaigne who, speaking of the great popularity which the work on surgery by Giovanni de Vigo had in France, confessed that *there was not then in France any surgeon able to write?* Italy, therefore, not only prepared the reform, but also—as I shall hereafter show—accomplished it, by giving to France authoritative masters, and that impulse and scientific direction which she wanted; Paré did not benefit Italian surgery, but French surgery enjoyed the benefits of the Italian. Nor had Italy any cause to envy France in the lifetime of Ambrose Paré, when she was herself, at that time, honored by that noble genius, *Fabrizio di Acquapendente*.

I shall now take some pains to show how truly, at the end of the 15th century, and in the beginning and the whole course of the 16th, Italy held the front rank in surgery, in the face of other nations, whether as regards the general and special treatises furnished by her surgeons, or the treatment of particular ailments, such as gunshot wounds, syphilis, vesical calculus, etc., etc., which derived many benefits from Italian surgery.

[The author here enters on a rather lengthy detail of the men and works of the period under discussion; but we prefer to concede the position taken by him, to following him through his demonstration. We therefore pass over some pages, that we may light upon something more interesting to the reader.]

The surgeon who, in the period between 1570 and 1620, shone with greatest brilliancy was

GIAROLANEO FABRIZIO D' ACQUAPENDENTE.

He held the field in Italy, and was the honored rival of Ambrose Paré. He was born in 1537, and died May 21st, 1619. He was the faithful disciple of *Gabriele Fallopio*, and being very learned in letters and philosophy, he became inspired by the genius of that great man, and imbibed from him his rigid method of reasoning, and his taste for discovery of things truly useful to the afflicted, and to the lustre of surgical discipline, advancing always from attentive observations and well-confirmed experience. Fabrizio was the first to bring into comparison the structure of the human body, but especially of the organs of sense, with that of animals, and therefore he was the father of comparative anatomy and physiology. His cures and his teachings earned for him much wealth and great fame. He left behind him 200,000 scudi (crowns), and he held the cross of a Knight of St. Mark, which was, at that time, the highest honor. He was instructor to *Harvey*, and a most zealous friend of *Galileo*. Of his works, those which relate to surgery are the *Pentateuchos Chirurgicum*, Frankfort, 1592, and his *Opera Chirurgica, in duas partes*, Padua, 1617. In the first, which is a complete treatise on surgery, and the best arranged ever published, diseases are described with all their particularities, with clearness and in excellent method. He shows himself deeply learned in ancient medicine; he regards as a treasure the teachings of Celsus, and coupling medicine with surgical pathology, he raises the latter to an elevated position. In the second, he treats of surgical operations, both ancient and contemporary, well understanding both; he laid the basis of orthopedia, explained instruments, machines, and apparatus, etc. This work was admired by all, and translated by many. *Portal* highly eulogizes the surgical books of Fabrizio d' Acquapendente, and speaking of the *Pentateuco*, he says, "It is a precious work, and such as the most remote posterity will ever hold dear, for in it are gathered the matured fruits of wisdom and experience." *Boerhave* declared that Acquapendente "excelled all, and none dispute his glory." There has not been a writer of the history of surgery who does not concede to the Paduan lecturer prime honors. Even *Malgaigne*, who said that surgery at that time was dead in Italy, called Fabrizio d' Acquapendente the rival of Ambrose Paré.

In the fifteenth century the grand discoveries in anatomy by Italian surgeons, confirmed the primacy of our nation to such a

degree that from every part of Europe, students flocked to our universities. In this period surgery was indebted to *Realdo Colombo* for the proposal to trephine the sternum for abscesses in the anterior mediastinum; to *Benvenuto*, of Venice, for the first complete treatise on the treatment of diseases of the eyes; to *Ercolani* for the art of plugging carious teeth with gold-leaf; to *Casserio*, a scholar of Acquapendente, for the study of the indications of cases, and of the means for performing bronchotomy; to *Cesare Magoti*, of Rheggio, for the best instructions as to the simplicity of the treatment of ulcers; to *Antonio Tozzi* for the best treatise on anthrax; to *Marco Aurelio Severino*, of Calabria, first, and next to *Pietro De Marchetti*, it was due that surgery was maintained in honor, when outside, of Italy, it had begun to flourish from the impulse given by the Italian schools, and by the light of that high genius, Ambrose Paré. Between the 16th and 17th centuries the art of surgery began to come to light in England, through the work of *Richard Wiseman*, who lived during the great revolution of 1640, and wrote treatises on surgery. Before he enlightened his country on the benefits of the art, only Banister and Read had any reputation; and historians relate that when the Dutch lithotomist, *Groenvelt*, calling himself *Greenfield*, was brought to London about the middle of the 17th century, Wiseman had no rival in the art, and he was regarded as the Paré, and the Acquapendente, of England. He, by his genius, his wisdom, his works and great experience, kindled the love of the surgical art, which from that time onward has never decreased among the surgeons of England, who have frequently with success, rivaled with other nations. In Germany, also, *Felix Marten* struck off the yoke of the fantastic schools of Paracelsus, and led the way in Basil, to that wise instruction in the study and discipline of surgery, in which were moulded afterwards *Fabrizio d' Hilden*, *Teofilo Bonnet*, the two *Platers*, *T. T. Pepfer* and many others, who in the 16th and 17th centuries conducted surgery towards that perfectionment now so much praised. Upper Germany gave heed to the voice of the surgeons of Basil, and became honored by *George Bastisch*, a celebrated oculist; by *Schenck*, and by *Henry Heers*, of Salmuth a physician and surgeon; by *Jos-senius* of Sebiz, the compiler; by *Gadorp* and *Ammon*, and by *Bohn*, the medical jurist; by *Scultet*, inventor of apparatus,

and illustrator of instruments, and by Purmann, an expert and bold military surgeon.

Holland and the low countries were waiting on the close of the 16th century for the regaining of their independence, that they might rise to the summit of knowledge, and open the way to that cultivation of surgical art for which they afterwards became so distinguished, through Foreest, Vyten, Fonteyn, Tulpio, De Horn, a disciple of the Italian schools, Barbette, who furnished the first light on surgical anatomy, Roonhuysen and De Mackren; and afterwards Solingen, Muys, Nunck, Stalpaart, Wauder-Viel, and others.

Denmark, regarding contemptuously the rivalry between her physicians and surgeons, had to wait to the middle of the 17th century before entering on the path to improvement.

Thus, taking a retrospect of the history of surgery in the several nations of Europe, it clearly appears that Italy, as in great masters she had preceded all during the 14th, 15th and 16th centuries, so she upheld in honor at the end of the 17th the decorum of the art and its noble direction. Only one man could with her dispute the palm, and render doubtful her primacy in the 16th century, and this was *Ambrose Paré*, of whom, in pursuance of my undertaking, it is necessary to speak, by giving an account of his life and works, following in the steps of the illustrious *Malgaigne*, who has written of him diffusely and elegantly, when republishing his surgery, in 1840.

AMBROSE PARÉ

was born at Saval, Maine, in 1517. He was the son of a trunk-maker. As to his early years much obscurity obtains. It is known that, as a lad, he went to Paris, and took residence near a barber surgeon, and was afterwards for three years an interne in the Hotel Dieu, where he studied the art, dissected bodies, and learned anatomy. Having no knowledge of Latin, nor of literature, or official philosophy, he devoted himself to the study of the classics in surgery, and followed Guy de Chauliac and Giovanni de Vigo, whose work had then (1525) been translated by Godin. Whilst very young he became a military surgeon in the service of the Mareschal de Monte Jan, general of the French Infantry, and followed him into Italy when the war was renewed between Francis I. and Charles V. He was then nineteen years old, and, struck by the requirement, he already meditated a revolution in the treatment of wounds by fire-arms. The fact was,

that it being the custom for surgeons to medicate musket wounds with boiling oil, and being out of a supply, he observed that on the following day the wounds which had not been thus dressed were in better condition than those treated according to rule. He thought and meditated, and after observing, consulting and experimenting, he became convinced of the inutility and the bad effects of cauterizing these wounds, in order, as was then believed, to destroy the poison in them. This error had already been combated in Italy by the famous physician Bartolommeo Maggi, of Bologna, who was born in 1477, and, as when Paré went down to Susa and visited Turin and Milan, the experiments of Maggi were well known, and his teachings were successfully followed, Paré may have heard and known of them. Having returned to France, Paré conducted his barber-surgeon shop up to 1543, when he was called by the Count of Bretagne to the field of Perpignan, where he had occasion to treat the Mareschal de Brissac, extracting a ball which the other surgeons had failed to get out; in order to do this he placed the body in the same position in which it had been when the ball entered. Having left the army and returned to Paris with the fame of a distinguished man, he was able, with the authority of Sylvius, to publish a book, the title of which is, "*La methode de traicter, les playes faictes par les harquebuses et autres batons a feu; et des celles qui sont faictes par fleches, dardz et semblable: aussi des combustions specialement faictes par la poudre a canon; composee par A. Paré, maistre barbiere chirurgien à Paris, 1545.*" This work awakened the glorious epoch of the renaissance of surgery in France. But how far ahead at that very epoch was not Italy, in her Giovanni de Vigo, Berengario da Carpi and in her schools, universities, and practical instructions?

When Paré published this book, Guido Guidi, called to Paris expressly to teach the art of surgery, had already published the *Chirurgia Greca* and Tagault, his *Surgical Institutes*. The surgeons and barber surgeons, aided by able men who had the charge of their theoretic and practical instruction and the benefit of the translations of the best ancient and modern works, arose from their humble state, and though unlettered they threw down the gauntlet to the learned physicians, and they triumphed. Paré himself, dissector to Sylvio in the school of France, published in 1549 a "Briesve collection de l'administration avec la maniere de conjoindre les os, et d'extraire les enfans

tant morts que vivaus du ventre-de la mere lorsque nature de soy ne-peut venir a son effet (Paris); and this book indicated the basis of a treatise on obstetrics, which he engaged to publish afterwards and which was one of the most original and complete. In 1551, following the army with high reputation, he was nominated surgeon in ordinary to the King, and in this quality he was present at the sieges of Metz and Hesselin, where he made marvelous cures and was taken prisoner and ran great risks of life.

At the siege of Damvillers, on a gentleman who had a leg smashed by a shot from a culverin and had to undergo amputation, Paré tried ligature of the arteries, refusing cauterizing with boiling oil, or hot iron, and thus he initiated into the practice of amputation that wise and useful hæmostatic agency, already noted for hemorrhages in general, and by which these grave operations were rendered afterward so much simpler and more efficacious.

In this he did not make a discovery, but the application of general precepts under the special head of amputations, disarticulations, etc. To such a height had the fame of the barber-surgeon risen that the brotherhood of St. Casimo, now changed into the College of Surgeons, wished in 1554 to receive him into their body, although he did not know Latin; after examination he was proclaimed master in Surgery. Paré then availing of the little leisure which his office and his clientele afforded him and applying himself to the dissection of as many bodies as possible, published on the 15th of April, 1568, his book on anatomy, which afterwards served in France as the text for all students. This book appeared nine years after the translation into French of the *Grande Anatomia* of Andrea Vesalio Brusselleuse, lecturer on Anatomy in the celebrated University of Padua, and Paré derived from it useful instruction.

He returned to the army, when, after the capture of Blois, Tours and Brouges, the French troops laid siege to Rouen. Here he saw the great havoc caused by gangrene of wounds and purulent infection, of which he afterwards gave account in his *Dix Livres de Chirurgie*, published in 1564. The campaign being over, Paré, in recompense of his services, was named Chief Surgeon to the King and was in consequence obliged to follow the Court. In a long journey which Charles the IX made through his provinces, Paré had the opportunity of falling in

with a wide spread epidemic of bubonic plague, by which he was himself seized. This, together with other epidemics of variola, purpura and roseola, noted by him in Paris after his return, afforded him material for composing and publishing, (1564) his "*Traite de la peste, de la petite verole, et rougeole, avec une description de la lepre, (Paris).*"

Being sent by the King to visit Count Mansfield in Luxemburg, he was obliged to go thence into Flanders, to treat the Marquis di Avret, and thus he had from lords, colleagues and the entire people, honours and ovations worthy of a sovereign. This was the most glorious time in the life of Ambrose Paré. In 1572 he published other *Five books of Surgery*, in which he treated of tumors in particular and of wounds and luxations in general.

He aimed, in this new book, to make opposition to a Dutch one, on tumors, by Gourmelin, which was translated in 1571, by Malezieu, a surgeon of St. Casimo. From this he was embroiled in a low, long and obstinate war and strong displeasure, on the part of those very confreres in surgery, whom he had defended and raised from their miserable condition, by his works and his fame, in the face of learned physicians.

The year 1572 was for France a year of sorrow and horrors. It was the year of *St. Bartholomew*, and Paré was believed to be a Huguenot, although according to Malgaigne and with good reason, he was not. It is certain that throughout the massacre of the Protestants he was not disturbed in his studies, neither did he fail in new honors. In 1573, he published two *Livres de Chirurgie, de la generation, et des monstres* and in 1575, the collection in folio of his complete works, with a dedication to his Sovereign. He had been nominated Domestic Chamberlain of the King and Councillor of State. On the death of Charles the IX Paré was maintained in the same honor under Henry the III and he openly defended the rights of the surgeons against the pretensions of the physicians, solemnly declaring that from its *antiquity, utility, certainty and difficulty*, surgery surpassed internal medicine.

The works of Ambrose Paré may be considered as the most solemn surgical monument of the 16th century, although there flourished in Italy, Fallopio and Fabrizio d' Acquapendente; in Germany, Felix Wurtz, in Portugal Rederigo de Castello Albo; in Flanders Francis d' Arie and in France itself that

great surgeon, Pietro Franco, who was held in little or no regard by Paré. He was the inventor of the high operations for lithotomy and author of a classic book published at Lyons in 1561, under the title "*Traite des hernies*" etc., in which surgery is worthily represented, as regards the treatment of hernias, of stone, of cataract and other surgical diseases. It might be useful, that this book, now become very rare, should be, for sake of its history of the art, republished.

Paré revised, corrected and augmented, by many chapters, his works and issued a new edition of them in 1579, and again in 1582. In order to combat popular errors he published a book against the utility of the horn of the unicorn and of pulverized mummies, and finally, in April, 1585, he issued the fourth edition of his complete works, if we count as the third, the Latin translation of them by Guillimeau (1582), in which combatting the trivial and shameful attacks by Gourmelen, he recounts his surgical labors, his campaigns, his dangers and his triumphs. He died on the 20th of December, 1590, aged eighty years, and his body was interred in the Church of Saint Andre des Arts in Paris, which was his own parish. This great and most laborious surgeon was a man of fearless life, noble aspect and a mind tranquil from pure thought; he passed intrepidly through the difficult and dangerous times he had to encounter during the bloody civil wars, from his living so long in Court and from the envy, calumnies and persecutions of his own fellows, who through him, solely enjoyed glory and an honored civil existence.

Ambrose Paré was the greatest surgeon of the epoch of the revival of the 16th century and may be ranked next to Celsus. In his works, which, through many years, continued to be in France, the *Codez chirurgique*, he embraced and taught the whole art, basing it on anatomy, physiology, the authority of the wisest masters and his own extended experience. He was a military surgeon, and achieved marvellous cures; he had in his clientele the rich and the poor, and so great was his fame, that all eulogy must fall short. To him was due, in France, the treatment of wounds from firearms, without cauterization, and if he was not the first to think of it, as Malgaigne would have us believe, preferring cold oil of puppies, (a secret purchased by him from a surgeon of Turin, of which he made use for many years on battle fields,) he was one of the most strenuous defenders of this method, which saved the wounded from bitter pain and very

great harm. To him was due the ligaturing of arteries in amputations.

After Guy De Chanliac, who was instructed by the Italian surgeons who went into France to teach, Ambrose Paré was the man, who by his genius, his experience and his works, rose above every other in the art, and for the time in which he lived he was the most splendid figure in the history of surgery, and it will ever signalize his name with gratitude and reverence and style him the *father of French Surgery*.

After Paré's death, the art of surgery in France was upheld in honor by Pigroy and Guillemeau, both disciples of the great Surgeon; the one giving to promulgated doctrines a better form and more suited to the studies; the other greatly benefiting ophthalmia and obstetrics. Saverie Pineau, the lithotomists, Jacques Demarque, with his book "*Sulle fasciature*" then Rousset, who illustrated the apparatus for the Cesarean operation, and the two D' Amboise, Thevenin, Habicot the defender of bronchotomy, Cabrol of Montpellier and others, sustained the renown of the surgeons of France, until the overbearing power of the physicians drove the art back into association with the barbers. It was decreed by the supreme authority of Parliament, that the barbers and surgeons should constitute a single consistory and corporation, and surgery was banished from the universities as an ignoble and indecorous art, in comparison with the exalted science of those most ignorant physicians, who, in imitation of the barbarians, made war against surgical knowledge and gave its works and documents over to destruction, thus using all their power that an era so shameful to them, might be forgotten.

French surgery was then bowed down under great humiliation, waiting for better and more enlightened times, and from that time onward, it had but few men who worthily represented it; hence it lived modestly and was barely tolerated, until in the 17th century the Academy of Sciences was instituted, and within it the Academy of Surgery.

Italy on the other hand, which in the 16th century was the country of all glories and grandeurs, refulgent in science, letters and arts, having acquired so much fame from her discoveries in anatomy, always loved and honored surgery, and held in high esteem and rewarded with universal applause the eminent men who cultivated it.

[Here the author indulges in another rather prolix detail of the achievements and works of his countrymen, which we may pass over without detriment to their renown, preferring to take up a more interesting subsequent portion of the history.]

The history of the diseases called *venereal*, resulting from impure contact, and upon whose origin pathologists had bestowed so much attention, now declaring them of very ancient date, and again of only recent importation at the close of the 15th century, in the ships of Columbus, returned from America, as well as that of the writer's detailing the special symptoms and the best remedies for contending with them, was a serious subject which for a long time, in the 16th century, exercised the minds of the Italian physicians, who published many works on the subject, sometimes defending, sometimes denying, the utility of certain remedies. These diseases, varying in their seat and form, now confined solely to the genitals, or the parts primarily infected, or again spread over every part of the body, stirred the genius and poetic vein of *Girolamo Fracastoro*, of Verona, to sing of it in elegant Latin verse, giving to this old or new distemper the title of *syphilitic*, and illustrating it marvellously in his three books (*Syphilidis, sive de morbo gallico, libri tres; Verona, 1530*). *Francesco de Villalobos*, a Spaniard, had, thirty-two years before Fracastoro, also written a poem (1498) on venereal diseases. It would appear as if these diseases, descended from Olympus, by natural affinity inspired the poetic rage of learned physicians, and were more worthy than others of harmonious measures.

Leaving aside the question, still unsolved, whether venereal and syphilitic diseases were ancient and biblical, or brought from America presently after its discovery, and not desiring here to make special reference to those writers (*Villalobos*, *Benivieni*, *DeVigo* and *Bosengario*) who, presumably, were already acquainted with the disease before Christopher Columbus returned from the new world, it is certain that the physicians of the 16th century, especially the Italians, not only described them to us, but also pointed out those remedies (mercury, guaiac, etc.) which were most potent in curing them; and it is also certain that at the outset they confounded with syphilis, diseases quite different from it (the Moorish plague, leprosy, elephantiasis), and the description of that time was not that which later writers gave in their nosographic delineation. However, the symptoms most

characteristic of the disease were pointed out, and the causes which through impure contact produced it, and the local were distinguished from the general forms in which the whole system was affected. *Giuliano Tano* was the first to admit the transmission of syphilis (De Saphato, 1515); and whilst *Musa Brassavola* was describing 234 species of syphilitic diseases (De morbo gallico, 1555), *Nicola Massa* had already published a book on the French disease, in which he established that a humor, or infecting virus, ruled the entire disease, and explained all its diverse forms. The remedy for syphilis, which, either from its analogy to other filthy diseases of the skin, or lighted on by chances, was selected, was mercury, of which *Vigo*, *Berengario*, and all the most able physicians of that time made use, in frictions, fumigations, and also internally in some special preparations. This medicament was persisted in until salivation occurred, and hence the useless or pernicious results of the remedy. Towards the middle of the 16th century another drug was imported into Europe from America, which had the fame of an anti-syphilitic. This was, as is known, the wood *guaiac*, called *lignum sanctum*, by which many physicians hoped to subdue confirmed chronic venereal diseases, now employing it alone, and again uniting to it gentian root, *sarsaparilla*, or *sassafras*. *Alfonso Ferri* was the most strenuous defender of this remedy, combating the inefficacy and injuries of mercury. *Piétro Mainardo* of Verona, *Francesco Daigado* (1529), *Tomasso Gianotti* (1537), *Ercole Buonacossa* (1540), *Michel Angiolo Biondi* (1542), *Antonio Fumanelli* (1547), etc., etc., followed.

In the 16th century Italy was the country in which more was written on the Gallic disease than in any other, and where more works on this important subject were published. Syphilitic bibliography has registered the most important of them, and the illustrious *Salvatore de Renzi* enumerates them in the third volume (page 615) of his classic history of Italian medicine, which every one may read with profit and gratification. Taking it as granted that syphilis, in all the early forms of the disease, had really invaded Europe after the return of Columbus in 1493, (which is denied by many syphilographers, on authorities of high value), and having demonstrated how much the Italians predominated in their attention to the disease, and their valuable works on it, I must add that both in the end of the 15th and through the course of the 16th century, several physicians and

surgeons of Europe, whose names I do not here give, nor that of their country, or the character of their works, contributed to throw light on the importance, nature, and symptoms of this terrible malady, to become convinced of which it suffices to consult the *Collectio Papiensis* (1516), that of Venice (1535), the third of Basilea (1536), in which are collected the works most in repute for the knowledge and cure of these diseases, not only Italian, but foreign also; besides these there may be consulted the "*Index chronologicus auctorum qui de Lue venerea scripserunt*, etc., by Giovanni Astruc, author of the famous book, *De morbis venereis*: Paris, 1736.

Clinical Reports from Private Practice.

IS DIPHTHERIA CAPABLE OF BEING TRANSPORTED BY FOMITES?
REPORT OF SOME CASES IN WHICH THE RELATIVES CLAIMED
THAT THE DISEASE WAS COMMUNICATED IN THAT MANNER.—
By C. J. MARCH, M. D., of Camden, Ark.

I was called late in the evening of July 2d, 1879, to attend James W., æt 9, the messenger stating that he believed the disease to be diphtheria, which diagnosis I found to be correct. The patient had been ill some forty-eight hours before I was called. I found the pulse about 100 or 110, temperature about 100°, and the cervical and submaxillary lymphatic glands very much enlarged and tender to the touch, this adenitis being accompanied by extensive cellulitis. I examined the fauces and could discover but a very slight exudation over the tonsils, which were very much swollen.

At my next visit, on the morning of July 3d, I found that the patient had expectorated several small pieces of the pseudo-membrane, and the throat was almost clear of exudation, the fever had abated and the patient was apparently in good condition, but I warned the parents of the treacherous nature of the disease, the probability of the reformation of the pseudo-membrane, and of a fatal termination. The result verified my judgment, for the case grew rapidly worse despite the most approved treatment, and death closed the scene on the night of the 4th.

The immediate cause of death was the extension of the diphtheritic process into the larynx. The system in this case was undoubtedly profoundly affected from the first, as was evidenced by the adenitis and cellulitis, which were well marked before any

exudation appeared in the throat. I used proper measures as far as was practicable to prevent the other members of the family (nine in number) taking the disease, but to no avail, as every member of the family was affected to a greater or less degree, only three cases being mild.

On July 6th, the seventh day from the time the first one was attacked, four more were stricken down, two males and two females, and, to make a long story short, the two males died, their symptoms varying in no important particular from those of the first case. The females of the family all recovered, their cases being milder throughout the whole course of the disease than those of the males. I have been thus particular in describing the symptoms and course of the disease as observed in these cases to show the great malignity it sometimes or, I should say, often assumes. The treatment of the above cases was, in the main, that of Prof. Smith, of Bellevue.

We now come to consider the etiology of the disease in question, and more particularly its contagiousness, or I think more properly its infectiousness, and whether or not it is, or can be, communicated by fomites as variola and other typically contagious affections.

The family referred to, resided in the country in a somewhat hilly and a very sandy country, and procured their water supply from a spring, as do hundreds of other families in this section, and their diet was principally "hog and hominy," of which they had an abundance. Their dwelling is on a high, dry situation, and up to the time mentioned they had all enjoyed vigorous health. Their occupation, planting, kept them in the open air sufficiently, and furnished them plenty of exercise. The boys were in the habit of bathing frequently in a neighboring stream, and this circumstance in connection with the fact that they were more exposed to the changes of temperature than the girls, may account for the greater malignity of the disease in their cases. The disease appeared during a prolonged drought, attended by great elevation of temperature, and was confined to that one family, there being not a single case among those that visited the family at the time the disease prevailed in the house.

Now for the theory of the relatives, as to the manner in which the disease was communicated, which is as follows:

A short time before the first patient was attacked (the exact length of time I could not ascertain), the child of a daughter of the family died in Polk county, this State, with a disease which they say was pronounced diphtheria, and they say that this daughter sent them a lock of her dead child's hair in a letter, and that the boy first affected and the rest of the family handled or perhaps pressed it to their lips as people often do with such things.

Such is the theory of the relatives and the family, and I submit it, together with a statement of the facts of the case as ob-

served by myself, to the readers of the JOURNAL, and ask them whether—in view of the facts, that there were no discoverable local causes competent to produce the disease, and that it was confined to those that resided in the one house—we are justifiable in adopting the theory of the relatives. In short, do you believe the facts tend to prove that diphtheria can be transported by fomites? This is a question of vital importance, and I would like to have the opinion of men eminent in the profession on the subject.

A RETAINED INFLAMED TESTIS IN THE INGUINAL CANAL MISTAKEN FOR A STRANGULATED HERNIA. By L. I. MATTHEWS, M. D., of Carthage, Mo.

Mr. A., aged 50 years or over, having for some time past worn a truss, for what he supposed was a rupture, was taken with a severe pain in left groin, on the 13th inst., and about the middle of the afternoon sent for Dr. Blank to attend him, thinking, of course, his hernia had "come down." He was seen by the Doctor soon afterwards, and, upon examination, it was thought that the patient was laboring under an incomplete inguinal hernia of left side. He made an effort to reduce it, and failing, sent for another physician, who etherized the patient and another effort was made to reduce the hernia, but without success.

About 5 o'clock in the evening Drs. G., R. and I were called by the attending physician to see the case. He informed us of the fact of his having been called to see the patient, the nature of the case, and the methods resorted to for his relief. Visiting the patient, we found him in pain, referred to the groin, and suffering from occasional vomiting. On examination, a large tumor was found in left inguinal region, occupying the inguinal canal. It was hard and irregular to the feel, unlike any other any of us had ever before seen. This fact was commented upon at the time, but, having been called to see an old man who claimed to have been ruptured long before—who wore a truss continually, and who, on another occasion, had suffered in the same manner and had called in a physician who had, after some time and with great difficulty, reduced the hernia—we accepted, at once and without hesitation, the conclusion that the case before us was a hernia, the hernial sack containing omentum instead of intestines, which would account for the peculiarity of the tumor before spoken of, and, from appearances, not likely reducible. He was, however, again etherized and efforts by taxis made to re-

duce it. The result was that it only added to the pain, nausea and vomiting already becoming troublesome.

After farther consultation, it was decided that the parts should be fomented for a couple of hours, the patient then put in a hot bath and kept there until thoroughly relaxed, and then another effort be made to reduce the hernia.

At 9 o'clock in the evening we met at the office of the attending physician, who, in talking over the case, informed us that but one of the patient's testicles occupied the scrotum. This very important fact had not, upon examination, been learned by us, for the reason that we did not for a moment suppose that the Doctor had been mistaken in his diagnosis of the case, and hence we had failed to make that careful examination of the case, when first called to see it, that we would have done under different circumstances. Returning to the patient, he was placed in the bath and kept there until relaxed, when taxis was again resorted to, but with no better success than before.

After learning of the non-descent of the testis, we concluded that the case was one of hernia, complicated with a retained testis; but having failed, after repeated efforts, to restore any parts of the tumor, we decided to continue the fomentations, give opium through the night and await results. Morphine hypodermically was administered through the night, and at 8 o'clock the next morning the patient was found comparatively comfortable—no pain, no vomiting—and, upon examination, the tumor had grown "beautifully less," and nothing was found occupying the inguinal canal except a misplaced testis, *somewhat larger and more tender* than usual, as might have been expected, considering the *manipulation* it had received the night before. The fomentations, the hot bath and morphine did the business, and our patient was saved from castration, or something of the kind, which would have been resorted to if he had not been found all right, on that, to him, eventful morning.

Erichsen gives the following account of a case of inflamed testis in the inguinal canal simulating a strangulated inguinal hernia:

"A man about forty, said to be laboring under strangulated hernia, was sent up from the country for operation. On being called to him, I found the house-surgeon attempting the reduction of the tumor in the hot bath, but as soon as I felt the swelling, I was convinced, from its hard, solid and irregular feel, that it was not a hernia. On inquiring into the history of the case, it appears that the patient had for the last two days suffered from occasional vomiting, and had been constipated; that the tumor in the groin had not appeared suddenly, though it had enlarged with great rapidity, and that it was exceedingly painful; and that he had always worn a truss for a supposed rupture of that side, until within the last few weeks, when, in consequence of the instrument breaking, he had discontinued it. On

examining the groin carefully, a tumor, about as large as the fist, was found in the right inguinal canal. It was tender to the touch, hard and irregular at the upper and outer part, but somewhat soft and fluctuating below; when the finger was passed into the external ring, the outline of the tumor could be distinctly felt in the canal. There was no impulse in it on coughing, but some abdominal tenderness on that side. The right testis was not in the scrotum. I ordered the man to be bled, the tumor to be leeches, and salines to be administered. Under this treatment the case did well."

Smith and Hamilton speak of the mistakes that may occur in a case of this kind, Smith remarking that a retained testis is especially liable to become inflamed. Of course a hernia may be found complicating a retained inflamed testis; yet, in this instance, I do not think that such could have been the case, for the reason that the entire tumor occupying the inguinal canal presented the same hard and irregular feel, no portion being smooth or yielding to the touch. The peculiarity of the pain—being of an intensely sickening character, the vomiting of no stercoraceous matter, to my mind, precludes the idea of it being a hernia.

This case has taught me several important lessons.

One is, that it will not do to take it for granted that a man has a rupture, because he wears a truss, and claims that at a former period it had escaped into the canal, and had been returned.

Another is, that one should not attempt the reduction of a supposed hernia, without making a thorough examination of the case himself.

That it will not do to accept as a fact, that a hernia exists because a tumor is found in the groin, and the symptoms present in the case simulate those of hernia.

That it is an extremely difficult undertaking to attempt to squeeze or force up through the inguinal canal into the abdominal cavity, an inflamed testis, and one not at all likely to be successful.

CASE OF CANCER OF THE PYLORUS AND PANCREAS, WITH POST-MORTEM EXAMINATION. By A. A. HENSKE, M. D., of St. Louis.

Mrs. Ellen O., 61 years of age, came under my observation about the end of September and complained of loss of appetite, slight fever and diarrhœa. Up to that time, she had always enjoyed good health and had no trouble with her digestive organs. A few weeks later, although her appetite had improved again, she began to complain of pain in the epigastric region after meals, and of constipation. The pain gradually became fixed

and permanent and more lancinating, then a tumor could be detected in the epigastric region.

The patient gradually grew weaker; the hue of her face changed into a kind of muddy, greenish pallor. About the middle of November, she commenced to vomit after meals. In the beginning, the vomiting could be controlled; but later she vomited even the smallest quantity of food, and the vomiting could not be controlled with any drug; even 40 minims doses of dilute hydrocyanic acid failed. Then again, the vomiting became less frequent; the patient seemed to improve.

On the 18th of December she suddenly grew worse. The vomiting had now ceased entirely. The temperature of the body run up to 105° F., the pulse small and very frequent, about 140 per minute. The whole abdomen became tense and puffed up. Patient now complained of terrible pain over the whole abdomen, which pain increased on the slightest pressure; even the bedclothing became unbearable. In short, there were all the symptoms of a diffuse peritonitis. The patient died December 20th, having suffered in all about three months.

During the whole illness there was no hæmorrhage noticed either per orem or per anum. Once or twice there was coffee-ground vomiting. The stools had often been examined, but no blood could be traced, nor has any free fat been found.

On autopsy the stomach was found very much dilated; there were cancerous excrescences all around the pyloric orifice extending along the greater curvature. The affected part had (looking from above) an elliptical shape, the long diameter being about 5" the short one about 3½". The periphery of the cancerous mass was the seat of infiltration of medullary cancer in the shape of a spongy mass. The mucous membrane of the pylorus had disappeared in extensive patches, and instead of it there was a smooth, shiny connective tissue growth; but between the bands of connective tissue there were dirty, grayish patches, like very adherent scabs. There were also spots of dark, ash-grey softening, and a few sloughing ulcers. The orifice of the pylorus was covered by nodular processes, hardly admitting the thumb to pass through. By farther examination, I found the pancreas united to the stomach. The serous coat of the stomach, on the anterior surface of the pyloric portion, was greatly thickened; its surface was uneven and nodular; this same thickening extended also on the posterior surface, where the stomach was united with the pancreas. The pancreas, itself, appeared to consist entirely of a cancerous mass, being very much enlarged, especially the head (about three times its normal size). The pancreatic duct was closed and entered the duodenum independently of the choleduct. The choleduct entered the duodenum about ½" above and was patulent. The pylorus was attached by adhesions to the neighboring intestines. Right in front of the adhesion to the pancreas there was seen a large,

blackish ulcer that had broken through the tissues and had emptied the contents of the stomach into the cavity of the lesser omentum. These contents had a brownish appearance. Other organs, as the liver, spleen, intestines, etc., were intact and free from new formations.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

MARCH 20TH, 1880.

Referring to Dr. Bernays' paper of a preceding evening, Dr. J. S. MOORE said: Dr. Bernays stated in his paper that when we speak of catarrh, that is, a discharge from the mucous membrane, and attribute it to cold, it is simply making an acknowledgment that we do not know what the real cause is, and he insisted that cold was rarely ever the cause of the disease. I differ with Dr. Bernays upon this point most decidedly. I believe that cold is one of the most fruitful sources of disease, and that notwithstanding we are not able, perhaps, to precisely demonstrate the *modus operandi*, yet that it does produce disease is an ultimate fact. Our knowledge of facts in medicine are derived from observation and experience, and observation and experience prove cold to be a fruitful source of disease. If a man, thinly clad, were to ride across the prairies of Illinois in the face of the bleak cold winds, so prevalent there, it would be very likely to give him pneumonia or rheumatism, or some inflammatory disease, whatever might be the *modus operandi*, that would be the cause. Although unable precisely to demonstrate the *modus operandi* of the action of cold upon the surface of the body, yet we may very plausibly explain it. The action of cold upon the surface of the body is to constrict the capillary vessels, to drive the blood from the surface, and thus to render it shrunken and pale. Its morbid action might be explained in the first place by its causing a loss of balance in the circulation, or internal congestion. Secondly, the action of cold upon the skin, whilst arresting perspiration, causes a retention in the blood of the effete matter which would be thrown out in perspiration giving rise to a condition of the blood termed toxæmia,

which condition might develop a blood disease. In the third place, cold by arresting the function of the skin causes an increase of the functional action of the lungs and kidneys, which organs act vicariously for the skin, and abnormal function in one organ is known to be productive of disease. And finally cold making a morbid impression on the cutaneous nerves induces a reflex action, a sympathetic irritation, and if this sympathetic irritation should be developed in the substance of the lungs it causes pneumonia; if in the pleura it causes pleurisy; if in the bronchial mucous membrane it will give rise to bronchitis, and if developed in other parts of the body will induce other diseases; if in the mucous membrane of the alimentary canal it causes diarrhoea. We may suppose, although we cannot say positively, that the parts which become the seat of sympathetic irritation were in a state of predisposition to disease in consequence of debility.

DR. PREWITT—Dr. Bernays gave us a description, in his paper of Simon's operation for uterine leucorrhœa, and the sterility consequent upon it. The operation presupposes a narrowing of the cervix, and at the internal os of course. It is claimed that this narrowing is analogous to stricture of the urethra, and is to be treated in a similar manner by division. Assuming this analogy—which I am not prepared to admit—I cannot see how division of the cervix below the vaginal junction, and an eversion of the lips and removal of a wedge shaped section above it, is to affect the contracted canal at the internal os. But assuming it should accomplish this, is it a harmless operation? Is the relief it affords equal to the evil it inflicts? We know that Emmet and others portray in vivid colors the ills that result from laceration of the cervix, and insist upon the necessity of operation for their relief. Now, if Emmet be right, how can this operation be justified? Wherein does a splitting of the cervix differ from that which results from laceration at childbirth?

DR. HURT—Our learned young friend, Dr. Bernays, holds the operation of Simon's bilateral incision of the cervix uteri is a cure for leucorrhœa, uterine catarrh. I think it is very natural for surgeons to select from mechanical methods and appliances their last refuge, but for the cure of leucorrhœa which we all know to be a mere symptom, which may be present in a very great variety of morbid conditions, I think it would be

impossible to practice any one particular remedy, be that surgical or medical, with a hope of successful issue in all cases. Now, it is possible that there is in some cases, such a degree of congestion and rigidity of the mucous membrane, without a corresponding expansion of the muscular fiber surrounding it as to produce a condition of stricture. There also are cases in which inflammation followed by infiltration and contraction as consequences may have left a condition of either partial or complete stenosis of the os and cervix uteri. We find also some conditions which are perhaps more or less congenital; of the cone-shaped cervix, most generally found in cases of dysmenorrhœa, in which an operation might offer some chance of relief, but we all know that these are not the only conditions, by a great many, in which we find leucorrhœa or uterine catarrh. Speaking from observation, I would say that in a majority of the severest cases of uterine leucorrhœa, there is absolutely a patulous condition of the os and cervix. You pass your probe surrounded by cotton without any resistance in such cases where you have some degree of flexion, and in such cases it would be impossible to expect any benefit from certain remedies, except in proportion as depletion might be indicated. I would say further, that even in cases of dysmenorrhœa, it is not always the fact that there is an obstruction in the cervical canal. In some of the worst cases that have ever come under my observation, I have been able to pass a probe with ease just before the menstrual flow, or during or after it. While it is true that in the virgin uterus the normal condition of the internal os is closed, yet my opinion is, that you will find that at the menstrual flow the probe will pass in all cases except such as are obstructed by flexions. I therefore conclude that the operation proposed here as a remedy for leucorrhœa is applicable, if applicable at all, to only a limited proportion of cases, those cases in which there is actually stenosis or partial stenosis, and in such cases as present flexions. It is possible in these cases that there may be some hope of benefit from an operation of this kind.

Dr. JOHNSTON—I was not here at the reading of Dr. Bernays' paper, but from the few remarks he made, I came to the conclusion that he has progressed somewhat beyond physiology. I did not think there would be a man found in the Mississippi Valley who would assert the doctrine, that exposure to the vicissitudes of temperature would not cause disease. If this doctrine

is correct, for forty years I have studied physiology to no purpose whatever.

There is hardly any disease the human frame is subject to, but what it is influenced by the vicissitudes of temperature. There are 2,281,000 glands in the body. We inhale 79 per cent nitrogen and 21 per cent oxygen at each inspiration to be carried all over the body, so say physiologists. Now I believe it is satisfactorily proven that the oxygen is carried to every part of the body and each one of these pores is employed in the process of exudation. Now I know of but one exception to the law of contraction of matter under the influence of cold, that is, in the case of water in the state of freezing. But suppose you constrict these 2,000,000 glands, how are you to get rid of the material. You produce a metastasis of the arterial circulation, then you have an irritation from the material which is in the system, but there is a congestion resulting from the irritation. The first act of this irritation is to constrict these capillaries, then follows stasis and you have active inflammation of the fibrous tissue, then we have pneumonia. But if you constrict these external surfaces and the mucous membrane, whether it be in the mouth, nose or vagina, a local irritation then commences, in consequence of a breaking of what Dr. Moore calls the equilibrium of the circulation. Thus we see that measles are more prevalent in the fall and winter than at other seasons; all diseases of the skin are seen more in the winter.

DR. PREWITT—I would like to ask Dr. Bernays, wherein a fissure of the cervix made in an operation of this kind differs from a fissure that takes place as the result of labor?

DR. HURT—The fact of extending the operation up to and within the internal os, would require a remarkable degree of skill to make it always successful and I doubt whether it would be of general utility.

DR. BARRET—I have never seen any of these operations, nor have I seen any case that was so operated upon, and I am obliged to admit Dr. Bernays' statement as to the result of the operation. But it occurs to me, that there are several theoretical objections. In the first place, when you divide bilaterally in that way, you have essentially the same conditions that exist when the cervix uteri is lacerated. There is necessarily cicatricial tissue.

Then again Dr. Bernays says he divides the internal os sufficiently to pass his finger up into it. He does not say he takes any precaution to guard against hemorrhage and it seems to me, that division of the internal os in the way he describes, would be very likely to cause hemorrhage difficult to control. I have performed division of the internal os a great many times and I know it is a very difficult thing even after it has been perfectly divided to control the hemorrhage; you cannot do it unless a plug is kept in, and I do not see how the introduction of these sutures would operate. Another objection is, that he rolls out the mucous membrane and makes the internal mucous membrane, the external.

The result of the movement is that you will have degeneration of the glands, causing hypertrophy of the uterus and functional derangement of all kinds.

Hemorrhage has been the great dread of every gynæcologist who has performed operations about the uterus. Dr. Sims I know never performs one of these operations without treating the uterus after the operation as though hemorrhage actually existed. Some time ago his practice was to plug up the uterus with cotton saturated with per-sulphate of iron. Only the other day I performed this operation. At the time it was performed there was no hemorrhage. I put in a plug to keep the womb open and plugged with cotton, and three hours afterwards I received information that the patient was bleeding. I went there and found her bleeding profusely and I had to take out the plug and plug her up again.

DR. JOHNSTON—What size plugs do you use and what kind?

DR. BARRET—The kind of plug I use is the plug that Sims used. I take a piece of whalebone, smooth it and wrap it around with iron cotton.

I push the plug up and slip it off with a pair of forceps and leave it there from twenty-four to forty-eight hours, sometimes three or four days. Then I keep the opening patulous by substituting some hard plug. I put my patient in bed and keep her in bed for ten days, and I should think it would be a dangerous thing to perform an operation of this kind in my office and allow the patient to go home. I put them in bed and do not allow them to rise for any purpose.

DR. BERNAYS—In the first place I will say that all of the ob-

jections urged here to-night will be found answered in my original communication of March 13, before this society. Some of the gentlemen who brought objections to-night were not present when I read my paper, and therefore did not catch the bearing of all my points. In regard to the danger alleged to be present in that operation, by Dr. Barret, I will say that he seems to me to be too timid in practicing manipulations on the womb. I allow my patients to walk the room right after the operation and never request them to lie down even for a short time. I instruct them to act as if they were perfectly well. The subject of hemorrhage is alluded to in my communication and sufficiently explained. The Doctor cites a case where he was called three hours after incising the womb to stop bleeding. I believe that in that case the larger blood vessels must have been cut during the operation and the hemorrhage had probably never ceased entirely, because, if a plug once forms in a vessel, we rarely find the phenomenon of secondary hemorrhage occurring so soon after the operation. If I remember aright, Sims, in his cases, and Byford of Chicago, in his, had secondary hemorrhage only after two or three days and I have explained in my paper before referred to, how these accidents may occur. Besides, I would say that what some men call "profuse bleeding" I would perhaps pay no attention to, allowing nature to put its own check on the process which I know it will certainly do. My after treatment in these cases really amounts to nothing, and when the Doctor says he carries the patients to bed after his manipulations, and does not allow them to get up for any purpose not even to urinate for ten days, it seems to me to be very uncalled for. From my experience in numerous cases, I will cite several that occurred to me within the last two weeks, in order to convey an idea of how little I estimate the dangers in operations on the womb. On March 11, I performed Simons' operation on a Mrs. T. from West Belleville, Dr. Warner assisting. I allowed the patient to take a train and go home that very evening. She came back on the fourth day and had the sutures removed and experienced no disagreeable symptom whatever. (I remember a case which resulted in a suit for damages in this city some years ago, where a surgeon after performing Sims' bilateral incisions, sent the patient to Belleville and she afterwards died, but I believe that in this case septic poisoning occurred, which killed the patient.) Another case which may dispel some of the

gentleman's fears in regard to manipulations about the womb and the vagina is the following: On Monday last, at 2 o'clock, with the assistance of Drs. J. M. Scott, A. F. Bock and Hauk, I operated upon a case of vesico-vaginal fistula. The operation involved the anterior lip of the womb and the fistula required ten sutures to close it. I allowed the patient after the operation to get up when she felt like it, and she passed her urine the same evening without trouble, in fact she pressed out the catheter with the urine by the violent contractions of her bladder, when I attempted to introduce it. She was able to get up on the third day and this afternoon at 2 o'clock I removed the sutures (Drs. Bock and Hauk assisting) and found the case completely cured. There had not been the least leakage after the operation.

MOBERLY (MO.) MEDICAL DISTRICT ASSOCIATION.

This association was organized June 16th, 1879, and comprised the counties of Chariton, Howard, Monroc, Macon and Randolph, in the State of Missouri. All physicians in good standing in the regular profession were eligible as members. Its meetings are tri-annual, being the first Tuesday in June, October and February. At the meeting in June, 1879, Dr. J. P. Vaughn, of Glasgow, was elected President; First Vice-President, Dr. A. E. Gore, of Paris; Second Vice-President, Dr. W. T. Dameron, of Huntsville; Third Vice-President, Dr. M. B. Collins, of Glasgow; Fourth Vice-President, Dr. B. F. Wilson, of Salisbury; Fifth Vice-President, Dr. Norris; Recording Secretary, Dr. G. W. Broome, Moberly; Corresponding Secretary, I. F. Forrest, Middlegrove; Treasurer, Dr. J. T. Cox, Moberly.

The following physicians at that meeting signed the Constitution and By-Laws, and paid the initiation fee, as members of society:

G. M. Dewey, B. F. Wilson, T. J. Banning, F. M. Clements, C. T. Holland, L. H. Colly, T. A. Martin, T. P. Perkinson, W. D. Wilhite, M. W. Vasse, of Chariton county; J. F. Forrest, J. B. Quisenberry, B. G. Dysart, G. W. Moss, A. E. Gore and T. B. Lloyd, of Monroe county; J. B. Scott, M. B. Collins, J. W. Haw-

kins, J. P. Vaughn, H. K. Given, J. T. Bailey, U. S. Wright, and Vaughan Bonham, Howard county; W. T. Dameron, J. H. P. Baker, W. P. Dysart, L. Dysart, J. C. Ridings, J. G. Wilson, J. S. Preston, T. Irwin, J. T. Cox, P. C. Yates and G. W. Broome, of Randolph county.

At this meeting nothing more was effected than organization, electing officers, drafting constitution and by-laws, and appointing committees. The committees were six in number, viz.: Committee on Credentials, on Scientific Communications, on Medical Education, on Medical Ethics, on Publication, and on Arrangements. Essayists were appointed to read papers at the next meeting, which occurred in October. The essayists appointed were: Drs. Wright, B. G. Dysart, Wilhite, Yates and Quisenberry. The meeting then adjourned.

The Association met the first Tuesday in October, in Moberly. Dr. J. P. Vaughn presided. Dr. Broome being absent, Dr. I. F. Forrest was chosen acting secretary. Drs. J. H. Petty, G. W. Weems, J. C. Hickerson, N. B. Forrest and N. M. Baskett, of Randolph county, were elected members; also Dr. J. S. Langsdale, of Monroe.

Dr. P. C. Yates then read a paper on "The Hereditary Tendency of Disease." A motion was carried that the names of the members be called alphabetically and that gentlemen be allowed five minutes each to discuss papers presented to the society. Each member presented his views on the subject under discussion.

A paper was read by Dr. U. S. Wright on "Typho-Malarial Fever," which excited quite a lively discussion.

Dr. Wilhite read a paper called the "Opium Habit," and gave his personal experience with this insidious and dangerous drug. This and the following paper by Dr. B. F. Wilson were thoroughly discussed by the various members of the society. Dr. Wilson's subject was "Blood Letting," in which he took the ground that inflammations could often be cut short by the judicious use of the lancet. Several of the members demurred, holding that inflammations were self-limiting, and recommending supporting treatment in these cases.

The following essayists were appointed for the February meeting: Dr. A. E. Gore, Paris, Mo.; Dr. J. T. Bailey, Fayette, Mo.; Drs. J. C. Hickerson and G. W. Broome, Moberly, Mo. The meeting then adjourned.

FEBRUARY 3D, 1880—MORNING SESSION.

The Association met in the city of Moberly, Dr. Vaughn, President, in the chair. Dr. N. M. Baskett was elected Secretary to fill the unexpired term of Dr. G. W. Broome, who has removed from the district. Dr. R. R. Hall, of Randolph, was received and enrolled as a member. Adjourned to meet again at 1 P. M.

AFTERNOON SESSION.

Dr. Vaughn in the chair. Present—Drs. Gore, Moss and Dysart, of Monroe; Drs. B. F. Wilson, T. J. Banning, G. W. Dewey, Martin and Fulcher, of Chariton; Drs. Vaughn, Hawkins, Scott and Bailey, of Howard; Drs. Hickerson, Cox, Irwin, Clarkson, Rothwell, Baskett, N. B. Forrest, Baker, Yates and Vasse, of Randolph.

The minutes of previous meeting were read and approved. Drs. W. F. Rothwell and J. R. Clarkson, of Randolph, and Dr. Fulcher, of Chariton, were elected members. Two visitors, Dr. A. W. McAlister, of Columbia, and Dr. W. A. McAlister, of Centralia, Mo., were elected members by invitation.

A very interesting and instructive paper was then read by Dr. B. G. Dysart, of Paris, upon "Typical Fracture of the Clavicle." Remarks and criticisms were then offered by the gentlemen present, each member being called in alphabetical order. All agreed with Dr. Dysart in his views regarding the difficulty of satisfactory treatment of this fracture.

Dr. A. E. Gore, of Paris, the next essayist, was then called upon and read a valuable and comprehensive paper upon "Post Partum Hemorrhage." Various remarks were made by the different members of the society, all complimenting the research manifested by the writer, some of them differing with some of the writer's deductions and plan of treatment. It was moved and seconded that in the discussion of this paper the three minute rule be suspended and members be allowed unlimited time. Carried. Adjourned to meet again at 7 P. M.

NIGHT SESSION.

President Vaughn presiding. Dr. Hickerson, called upon for an essay, read the report of a case of uræmic convulsions, which was supplemented with an elaborate report of cases and the etiology, pathology and treatment of uræmia arising during

pregnancy. He rejected the lancet in the majority of cases reported, his reliance being placed upon veratrum viride in 25 and 30 drop doses every hour and a half. This, in conjunction with digitalis, morphine and stimulants, had proven thoroughly successful in his hands. A lively discussion then ensued regarding the administration of veratrum in such heroic doses. Some were inclined to uphold the lancet, others coincided in the views set forth in the paper. Numerous compliments were showered upon the author for the study and labor displayed in his essay.

Dr. I. F. Forrest, of Monroe; Dr. M. T. Fulcher, of Chariton; Dr. H. K. Givens, of Howard; Dr. Dewey, of Chariton, and Dr. J. T. Cox were appointed essayists for the next meeting.

Dr. B. G. Dysart, of Paris, was appointed to represent the Association in the State Medical Society. Dr. J. C. Hickerson was nominated as alternate and elected. The president was added to the number.

The meeting adjourned to convene again in Moberly, the first Tuesday in June, 1880.

J. P. VAUGHN, President.

N. M. BASKETT, Secretary.

Correspondence.

EDITOR JOURNAL:—Can the American Medical Association afford to discriminate between medical men, as is now done by its Code of Ethics? I am aware, in discussing the propriety of revising the American Code of Medical Ethics, I am treading on what many consider sacred ground.

If an apology is necessary, it is that the science of medicine is progressive and cannot tolerate even the errors of its founders. I take the broad ground that there is nothing sacred that is not founded in *justice, truth and right*. Also that the code unjustly discriminates between medical men. I doubt not the framers of the code acted in good faith, according to the knowledge they then possessed, like the framers of the constitution of the United States.

A later generation of statesmen discovered the imperfections of the latter and likewise men hastened to correct them. I ask, is it possible in this progressive age, that the American Medical Association, the most noble profession on earth, can act less wisely and refuse to correct acknowledged errors in its code.

In discussing this subject, I shall confine myself to that portion of the code embraced in Chap. 2d, Art. I, Sec. 4, under the head of "duties for the support of professional character."

It reads thus, "equally derogatory to professional character, is it for a physician to hold a patent for any surgical instrument." A physician holding a patent for an instrument is compared with the medical man mentioned in Sect. 3, of the same Chap., who promises, "radical cures," etc. Such promises, etc., being considered "derogatory to the dignity of the profession."

Is the comparison a just one? I aver it is not. I agree entirely with the code in pronouncing the "promise of radical cures, etc.," by medical men, unbecoming medical gentlemen. A more correct comparison would be *between a surgeon who holds a patent for an instrument and an author who holds a copyright for his book on surgery*. The principle underlying the copyright is identical with that of the patentright. If then the holding of a patentright for a surgical instrument is derogatory to the character of a medical gentleman, I cannot conceive how an author holding a copyright for his book on surgery is any less culpable—Why does an author copyright his book? And what is the effect! It is, first, that he may be able to *monopolize* its publication and control the price. Secondly, to impart knowledge. The effect is a heavy tax on the profession for the benefit of the author. I grant, if a book on medicine or surgery is a meritorious one, its author should be remunerated for his labor. Sup-

pose, in place of writing a book and "blowing himself" as "Member of the Philosophical Society; of the American Medical Association; fellow of the college of Physicians of Philadelphia; corresponding member of the Imperial Academy of Medicine; Foreign Associate of the Medical Society of Emulation of Paris; of the Academies of Sciences of Turin, Copenhagen, Stockholm, Nancy and New Orleans; of the Medical Societies of Naples, Marseilles, Lyons, etc. Prof. of the Principles of Surgery, Military Surgery and Hygiene and of Fractures and Dislocations, etc.," a surgeon should invent an instrument and like an author, desire to control the manufacture and sale for his own benefit, with this view, he obtains letters patent for it. What moral right has the American Medical Association by its Code of Ethics, to claim the instrument free of charge, or stigmatize the professional character of its inventor, especially while the written composition of an author is allowed the protection and remuneration afforded by a copyright. President J. Marion Sims in his Centennial address before the American Medical Association at its twenty-seventh annual meeting held in Philadelphia, took a step in the right direction, but unfortunately faltered ere he finished. He says: "A distinguished physician invents a galvanic cautery. He has spent much time and a large amount of money in perfecting his apparatus. According to our code he cannot, he dare not, take out a patent for it, as any other honest man could do, simply because he is a practicing physician. But why should not the physician reap the reward due to talent and inventive genius as any other man? A few brave men daring to assert their inalienable rights, would soon establish a precedent that would ultimately become a law, rendering this clause of the code, as in other instances, a dead letter."

"The Code of Ethics is violated every day, either willfully or ignorantly, not only by the rank and file, but by men high in the profession, men who are considered leaders, advanced thinkers and workers." Again: "the time will come [but not yet] when our organic law, like the constitution of our country, will require modification and amendments to suit a higher intelligence, a broader education and a greater destiny."

Why Dr. S. should think it best to defer action, after admitting the imperfections of the code, I cannot understand.

Such being the facts, the members of the American Medical Association owe it to themselves to lose no time in correcting and amending the code to suit a "higher intelligence, a broader education and a greater destiny." Why is the code violated by men high in the profession? One cause is, the unjust discrimination, such as I have mentioned. Like the midnight assassin it demands the product of mechanical genius, or the ruin of his professional character. Who have been and who are, the controlling spirits at the meetings of our national association? I answer, the professors in our medical colleges, those in charge of

hospitals and asylums, our medical and surgical authors, the latter receiving from ten to forty per cent. on each book sold under the protection of a copyright. These are the persons, generally, who condemn any steps towards correcting our national code, rendering it more in harmony with the present advanced ideas of what constitutes unselfish liberality as well as medical dignity. Nay more, their influence is such, that few professors dare even to *exhibit* a patent instrument before a class, no matter how superior to those not patented. They fear the censure of the medical press.

It was my misfortune to obtain letters patent on a metallic splint for fracture of the femur, one of my own invention. After years of labor and an outlay of considerable money, I donated it to the profession, in fact to the instrument makers, in order that the profession dare give it a trial without fear of censure. It seems my object failed, as the following will show. My friend Dr. Bork, of St. Louis, did me the honor to make favorable mention of my splint in his monograph not knowing it had ever been patented. It seems the views set forth in the doctor's monograph did not accord fully with those of Dr. Frank H. Hamilton, consequently drew forth a criticism from the editor of the *Hospital Gazette*, April 11, 1878. The editor I judge had two objects in view, one to write up Dr. Frank H. Hamilton and the other to "publicly rebuke" Dr. Bork and others for having opinions of their own. He assumes to write the cause of "good morals and good manners."

How well he has succeeded in the latter, an extract from his article will show. "When of late an American surgeon or mechanic patents a splint, or occasionally when the advocate of a particular mode of treating fracture has not patented his opinion, it has been found convenient, first to state, that Dr. Frank H. Hamilton never makes a limb as long as it was before, or that he is exceedingly unfortunate in the treatment of fractured femur, and secondly to affirm that the new apparel now presented does make perfect limbs, neither of which statements are true." "Thus a certain Dr. Parko, of Bloomington, Ill., whose useless splint is we believe patented, says: Prof. Hamilton says there is no splint yet devised that will prevent shortening of a fractured femur, I claim it is impossible for the limb to shorten while in this splint." As far as I am concerned, the above remarks regarding Dr. Frank H. Hamilton being "exceedingly unfortunate in the treatment of fractured femur" are all gratuitous, emanating entirely from an over zealous bruin.

The statement said to be Prof. Hamilton's can be found on page 1017, 5th Edition, Prof. Gross' Surgery. I make this extract solely for the purpose of showing how willing the editor of the *Gazette* is to use the prejudice against patents, to help kill the force of Dr. Bork's statements. For the benefit of the *Gazette* and in the cause also of "good morals and good manners," I

will state I am satisfied, neither the editor of the *Gazette* or Prof. Frank H. Hamilton ever applied my "useless splint" or saw it applied; nay more, it is doubtful if they ever saw the splint, save the wood cut I sent Dr. Hamilton, and yet the editor presumes to enlighten the medical profession on its practical merits. At the risk of being considered egotistical, I will state after a practice of thirty-two years, part of which was in the Russian Army during the Crimean war, I think I ought to be able to measure a fractured limb accurately and know when an instrument is capable of doing good work, but as others have tested the splint, I confidently present it to the public on its own merits. To be a *medical gentleman* is all the code we need; copyrights and patent-rights should be placed on the same footing, both sanctioned or both abolished by the American Medical Association. Readers are referred to address of Pres. Sim's Centennial report, American Medical Association, 1876; also a paper by Drs. D. Prince and Antisell in transactions, 1866.

C. R. PARKE, M. D.

Bloomington, Ill.

HYDROBROMIC ETHER.

JACKSONVILLE, ILL., April 13, 1880.

MR. EDITOR:—Allow me to lend what aid I can to establish the status of the new anæsthetic. Having seen the praise of Dr. Levis and Dr. Turnbull, I procured from John Wyeth & Bro. a pound of bromide of ethyl. Thinking, from the reports of these observers, that the new agent had acquired an established character, I did not first experiment upon animals but gave it to a boy four years old. I pursued the method followed in giving chloroform, applying about a drachm to a small napkin with open meshes reinforced by another napkin, as recommended by Dr. Levis. The lungs dilated largely with violent action of the heart and full pulse, followed by a pulse of less than the normal fullness. The pupils became moderately dilated, at the same time that a muscular twitching affected the face and the limbs. Without waiting for complete quiet, the operation was made, which consisted in stretching the feet for talipes. The boy has taken chloroform every Monday morning for four weeks, and he has uniformly been able to eat his dinner, very rarely having any nausea. On this occasion he was excessively nauseated the whole day. As the proceeding is a very brief one, the duration of anæsthesia is made as brief as possible.

Half an hour later, Monday morning, April 5th, the same agent was administered to a healthy girl fifteen years old. The same violent breathing and cardiac excitement, followed with subsequent flagging of the pulse and the same muscular twitch-

ing. The anæsthesia being yet imperfect, the bromide of ethyl was discontinued and ether substituted. The patient came quickly under its full influence, and the operation proceeded, which consisted of forcible extension of the knee. This patient had taken ether three times before with no unpleasant symptoms during its administration.

Two days later, the hydrobromic ether was given to a dog in the same manner in which ether is given—that is, by pouring it lavishly upon a napkin of coarse and stiff texture folded into the form of a funnel. The animal came fully under anæsthesia after a brief struggle, and after about ten minutes of sleep gradually woke up and ran away.

It is needless to say that my impression of the new anæsthetic is unfavorable.

Since this experience, the report, in the *New York Medical Record*, of a case of apparent bromine poisoning, has attracted my attention. In this case the anæsthesia was prolonged through an hour and forty minutes, and the patient lived twenty-two hours. All the tissues and all the secretions and excretions gave the characteristic odor, after death.

It may be that I was too timid in the administration of the new agent, and that more experience will beget more boldness, but I shall wait awhile to hear from others.

The nausea which followed in the case of my little boy, in whose case the agent was given for the brief period necessary for a hard stretching of the feet, is contrary to what I was led to expect from the reports of the Philadelphia experimentors.

Very truly yours,

DAVID PRINCE.

DEPARTMENT OF THE INTERIOR, CENSUS OFFICE, }
WASHINGTON, May 15, 1879. }

It is earnestly desired to make the vital statistics of the United States far more comprehensive and complete than they have ever been. To this end every effort will be made, through the usual official agencies of the census, in the enumeration beginning June 1, 1880. But the Census Office deems it expedient to appeal to all medical and surgical practitioners throughout the country to lend their aid in reaching this most desirable result. The scheme now proposed has been submitted to many physicians, sanitarians, and vital statisticians, and has received their unanimous approval.

Each physician and surgeon throughout the United States is, therefore, asked to preserve a record for the use of the Census

Office of all DEATHS occurring in his practice during the year beginning June 1, 1879, and ending May 31, 1880.

The present volume contains twenty-four pages, each affording space for the record of one death. Should the number of deaths occurring within the practice of any physician exceed twenty-four, another book will be furnished on application to the Census Office.

It is intended that this book, containing the record of the year June 1, 1879, to May 31, 1880, shall, as soon as practicable after June 1, 1880, be forwarded, by mail, to the Census Office, by the physician keeping the record, for which purpose an envelope and stamps are enclosed.

The cost of stamps used in applying to the Office for additional blank records, or in other correspondence growing out of this service, will be immediately refunded.

At the meeting of the American Medical Association, at Atlanta, May 8th, the following resolution was unanimously adopted:

"WHEREAS, The Superintendent of the Census requests that the Physicians of the United States will aid him in making the mortality and morbidity statistics of the Census of 1880 as complete as possible; and

"WHEREAS, It is of the highest importance to medical science and to public hygiene that this request shall be fully and universally complied with; therefore, be it

"Resolved, That the American Medical Association earnestly recommends to each and every physician in the United States that he shall furnish such information as is requested by the Superintendent of the Census, and that he shall keep such a record of his cases for the year beginning June 1st, 1879, as will enable him to make this information accurate and reliable."

The form of Record herewith furnished is approved by the National Board of Health, which fully concurs in the above resolution.

It is hereby explicitly promised that all information obtained through this source shall be held strictly confidential.

FRANCIS A. WALKER,
Superintendent of Census.

Excerpts.

EXCERPTS. FROM THE ARCHIVES OF OTOTOLOGY. By S. POLLAK, M. D., of St. Louis.

The Archives of Otology are the continuation of the otological part of the former *Archives of Ophthalmology and Otology*. This is the second otological journal published in the United States. It is edited in English and German, by Drs. Knapp and Roosa in New York, and Dr. Moos in Heidelberg. They are assisted by a number of the ablest aurists in this country and Europe.

In an interesting essay on "Primary Acute Purulent Inflammation of the Middle Ear," by Dr. Knapp, he gives the statistics of ear cases in the many aural hospitals in the old and new world:

Otorrhœa averages $8\frac{1}{2}$ per cent.; the greatest contingent is furnished by the age of childhood—from birth to the fifth year 20 per cent.; they occur more frequently in winter months; 15 per cent. on both sides, 85 on one side. In 64 per cent. it is the consequence of exposure to cold, causing inflammation of nasopharyngeal mucous membrane, and its continuation into the middle ear. Seabathing $\frac{1}{100}$ is a fruitful cause of otitis med. purulenta. Seawater is injurious by its low temperature, the large quantity of salt it contains; by its contamination with fine sand, slime, small animals and plants; by its impulse and by the physical properties of the ocean bath acting on the system, causing great loss of heat in the whole body. Aurists should caution patients against seabathing. The occurrence of chronic aural catarrh, with thickening of drum head, in consequence of frequent bathing in the ocean, is happily illustrated by Dr. Burnet, who says, it is well-known in the South, that hunting dogs, taught to dive, become deaf.

Otorrhœa begins, after exposure, in one to twenty-one days; the outbreak of the discharge, which coincides with the perforation of the membrana tympani, sets in in four to seven days. Many cases which run their course as acute aural catarrh, would manifest themselves, as acute purulent otitis, if a puncture of the membrane were made. The duration of the purulent discharge varies considerably, from three days to as many years. The cessation of the otorrhœa precedes the closure of the perforation of the drum membrane. Perfect recovery with good hearing in $\frac{85}{100}$; transition into the chronic aural catarrh 3.85 per cent.; transition in chronic otorrhœa 4.39; death 2.19.

TREATMENT.—To secure *perfect restoration*, **REST** is as indispensable in acute inflammation of the small as of the larger organs, as in pneumonia, as in ophthalmia with iritis. Rest is an essential condition to cure all inflammations readily, safely and completely. The patient must be impressed with the belief that otitis media purulenta is a dangerous inflammation, which can terminate in death; that even the less important consequences of neglected otitis are chronic otorrhœa, thickening of drum head, adhesion between the different parts contained in the drum cavity, a life-long misery, which may be prevented by a week's rest at home and in bed. Local treatment of otitis before otorrhœa sets in, are *leeching*, *filling the ear with warm water*, and an *aperient*. When the discharge is suddenly diminished, and pain in the ear and head return, *steaming* of the ear is advantageous; it is apt to bring the discharge on again, and is sometimes attended with liberation of copious cheesy and offensive masses, and brain symptoms have become allayed by it. If leeching and steaming do not reduce the inflammation, operative treatment should not be delayed.

The greatest attention should be paid to the naso-pharyngeal cavity, Eustachian tube, which must be irrigated with some astringent lotion, either by gargles or nebulizer, or post-nasal syringe, and the tubes by catheter. Inflation of the ear by the Politzer method or the catheter may have to be resorted to, but should not be used in the initial stage of the disease, lest it cause pain and temporarily diminish hearing. The inflation should always be used together with the auscultation tube, by which we can judge better of the resistance in the tube and the contents in the drum cavity.

Paracentesis of membrana tympani should be resorted to when the indications are clearly pronounced, pain, mucous râle, bulging of membrane; it affords relief only when it immediately liberates pus, and is followed by otorrhœa. *Incision of mastoid* is occasionally necessary and commonly affords relief. *Opening of the mastoid process* may be made when there is probable retention of morbid substances in the mastoid cells. Careful *syringing* of the ear with lukewarm water, to which a small quantity of table-salt or soda may be added, and the canal wiped out with a plug of absorbing cotton wound around a porte cotton. Weak astringent solutions may be instilled into the ear; strong solutions or $\frac{1}{100}$ of nitrate of silver invariably increase the inflammation. Polypoid granulation scarcely ever require operative treatment. Abscesses adjacent to the ear are always treated by incision.

• **DR. C. R. AGNEW's** clinical contributions to otology are very interesting and instructive:

Pain in the Ears with Spasm of the Tensor Tympani, Caused by the Internal Use of Strychnia.—The patient was suffering

from large central scotoma of the left eye, with confusion of vision, for which he was placed upon biniodide of mercury and hypodermic injection of strychnia. Vision improved from $\frac{1}{80}$ to $\frac{1}{10}$. Strychnia was continued in pills $\frac{1}{16}$ three times a day. But it had to be omitted, for it caused pain in the head and especially in the ears, which came at the close of the meal with a sudden thump, and would beat for a few minutes against the membrane of the ear. The beating sensation was likely due to the spasmodic twitching of the tensor tympani muscles. It ceased with the discontinuance of the drug.

Three remarkable cases of primary inflammation of the mastoid cells.—Hitherto mastoid inflammations were considered as secondary to, or complications of, inflammations of the middle ear. Nowhere is it stated that the disease sometimes occurs independently of the latter. But in the cases reported, the membrane was found intact, with no evidence that it had ever been perforated. There may have been a secondary inflammation of the middle ear, but not enough to cause ulceration of the membrane, while the primary inflammation of the mastoid cells was such, that caries of the bones was produced, resulting in fistulous opening into the external auditory canal. Usually the inflammation extends from the posterior nares along the Eustachian tube, through the middle ear into the mastoid cells, but here the inflammation *originated* in the mastoid cells, and travelled in the opposite direction.

Several cases of sub-acute inflammation of the middle ear with fluid in the tympanic cavity.—Puncture of the drum-head.—Recovery.—In all, hearing was much interfered with, accompanied by a crackling or ringing noise. They originated from a cold, attended with little pain. Tuning fork heard best with the affected ear. The membrane was of dirty, yellowish color, with a light spot of normal shape, but not brilliant. Tubes pervious. Upon inflation air bubbles were seen rising. The drum head was then punctured, air forced through either by the Valsalva or Politzer method, carrying with it a quantity of Malaga grape colored fluid. Tinnitus ceased. Hearing increased.

Siegler's optoscope had sometimes to be resorted to, making powerful suction while inflation was going on, so as to force the fluid out. They usually terminate favorably.

Editorial.

DR. THOS. SCOTT was born in Ireland and came to this country when a young man. He located in Philadelphia and became a druggists' clerk in that city. There in his uncle, Dr. Foster, he found a firm and constant friend and probably at the instance of the latter, he commenced the study of medicine. Dr. Scott came to St. Louis thirty years since and established a drug store on the corner of 12th and Pine streets. He subsequently completed his medical studies and commenced the practice of medicine in 1860. On May 10, 1867, he married Miss Maria Miller of Sparta, Ill., a lady of great excellence and loveliness of character and greatly beloved by all who knew her. To her husband's supreme grief she died March 21, 1877, leaving to his sole care two interesting daughters.

Dr. Scott's voice was frequently heard in the meetings of the St. Louis Medical Society and always to be appreciated. To his fellows he was ever courteous and true; to his patients faithful and discreet; to the poor, kind and sympathetic; hundreds of whom will mourn his death. In fine, in all the relations of life, he always showed himself a Christian gentleman of the highest standard. Inheriting a frail constitution he at last succumbed March 18, 1880, to a painful and protracted disease, all of which was born with Christian fortitude.

STATE MEDICAL SOCIETY.

The twenty-third annual meeting of the Medical Association of Missouri will be held at Carthage, May 18, 19, 20. From the chairman of the Committee of Arrangements, Dr. L. J. Matthews, we learn that the Association will convene in the Opera House of that city, at 4 o'clock P. M. of the 18th. There will be five regular sessions, namely: The first, on the afternoon of the 18th; the second, on the evening of the 18th; the third, on the fore-

noon of the 19th; the fourth, on the afternoon of the 19th; the fifth, on the forenoon of the 20th.

The delegates coming from the east will arrive in Carthage at 12:30 P. M.; those from the west at 3:30 P. M. The Committee of Arrangements state that the citizens of Carthage will entertain the members of the Association at their homes. Delegates will be met at the depot by the Committee of Reception and assigned to their respective places of entertainment. While the citizens of Carthage desire to extend their hospitalities to all who attend, ample hotel accommodations can be had by those who prefer them.

A banquet will be given to the members of the Association at Regan's Hall, on the evening of the 19th. The Committee of Arrangements expect to obtain reduced rates on all the railroads. The result of their efforts in this matter will be announced in the next issue of the JOURNAL.

THE ALIENIST AND NEUROLOGIST.

We have received the second number of Dr. C. H. Hughes' Journal. From a glance at the index to contents, we see a goodly variety of subjects. There are ten original contributions occupying 88 pages, the remainder of the 139 pages is taken up in selections and editorials. The Journal, although a quarterly, is worth its subscription price, as it ably presents to the general profession clinical psychiatry and neurology, subjects we are pleased to notice, that are rapidly being recognized as important to the practitioner of medicine.

ATTENTION.

We wish that every reader of the JOURNAL may take advantage of its present rates. After the 25th of this month, as stated in our last issue, we will be compelled to ask \$4.00 for the JOURNAL for the year 1880. Please bear in mind that the JOURNAL is 16 *pages larger each month* than any \$4.00 medical periodical in the country.

ANOTHER NEW JOURNAL.

The *Arkansas Medical Monthly*, edited by Dr. J. J. Jones, of Little Rock, Ark., is before us. It is a neat journal of 56 pages. Its make-up displays much taste and care. We bid it welcome to our exchange table and wish it success.

INDEX MEDICUS.

There is not a medical journal in the land but that is benefitted by the publication of this really elegant monthly periodical. Every member of the profession who is devoting his time to any special subject should become a subscriber to the *Index*. We earnestly hope that it will continue to prove to its publishers as great a financial success as it is a literary success.

Meetings of Medical Societies.

MEDICAL MEETINGS IN MAY.

During the coming month the following States will hold their annual meeting:

- May 5.—Arkansas State Society, at Little Rock.
 - May 11.—North Carolina State Society, at Wilmington.
 - May 11.—Kansas State Society, at Leavenworth.
 - May 12.—Michigan State Society, at Grand Rapids.
 - May 18.—Missouri State Society, at Carthage.
 - May 18.—Illinois State Society, at Belleville.
 - May 18.—Indiana State Society, at
 - May 19.—Pennsylvania State Society, at Altoona.
 - May 19.—Kentucky State Society, at Lexington.
 - May 25.—New Jersey State Society, at Princeton.
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MADISON COUNTY (ILL.) MEDICAL SOCIETY.

The annual meeting of the Madison County Medical Society will be held in Edwardsville, at Masonic Hall, Tuesday, April 27th, 1880, at 10 o'clock A. M., at which time there will be an election of officers and of delegates to the State and National societies. As the State society will be held in Belleville next month, there will be an opportunity for many of our members

to become members of the State society, as none can become members but delegates from county societies.

The programme will be varied and interesting. An essay by Dr. Guelick, of Alton, on "Anæmia;" the President's annual address. The cases reported for discussion will be: "Cerebro-Spinal Meningitis," "Obstinate Constipation, over forty days' duration," "Erysipelas." The society will also visit the County Hospital in which there are many interesting cases. Alex. Heburn will be present with a fine display of surgical instruments. All are cordially invited to attend.

J. M. ARMSTRONG, Secretary.

SOUTHEAST MISSOURI MEDICAL SOCIETY.

The Southeastern Missouri Medical Association will hold its seventh semi-annual meeting at Commerce, Mo., commencing Tuesday, May 4th. Its President, Dr. A. E. Simpson and Corresponding Secty., Dr. John W. Cannon, have made unusual efforts to insure a large meeting. We hope that they will be successful.

STATE MEDICAL SOCIETY OF ARKANSAS.

The Fifth Annual Session of this Society will convene in the city of Little Rock, at 10 o'clock, Wednesday, May 5th, next, according to adjournment.

The meeting will be held in the Hall of the House of Representatives of the State Capital. Local Societies will see that they have a full representation present, each society being entitled to one delegate to each five members, and one for any fraction over this number.

Each member, it is expected, will contribute whatever of interest to the profession that has come under his personal observation during the past year—scientific communications upon medical questions, or any of its collateral branches, are particularly requested.

All State railroads will transport members and physicians at regular excursion rates, *one fare* in going and *one-fifth* in returning, on certificate of the Secretary of this Society.

The hotels of the city make a liberal reduction on this occasion. All regular graduates in Medicine, from any recognized College of the American Medical Association, are cordially invited to attend, and connect themselves with this organization.

A large meeting is expected, and it is hoped each county in the State will have a representative physician present, so that every Section of this great Commonwealth will have a voice in its deliberation.

E. T. DALE, M. D., President.

R. G. JENNINGS, M. D., Sec'y.

Book Reviews.

EARLY MEDICAL CHICAGO, A HISTORICAL SKETCH OF THE FIRST PRACTITIONERS OF MEDICINE. By JAMES NEVINS HYDE, A. M., M. D., with steel Engravings of Professor J. Adams Allen, and the late Dr. Daniel Brainard and wood cut of Dr. N. S. Davis.

This book of 84 pages gives us the early medical history of Chicago. The profession of that place is certainly indebted to Dr. Hyde for the interesting manner in which he has presented this history before them. In this book we find that Chicago was once spelled Chicagoux, Chikrjo, Checagua and Chekagua.

Dr. Isaac V. Van Voorhees, Chicago's first physician, was killed at Fort Dearborn, 1812.

In 1820 Dr. Alex. Wolcott of Connecticut, settled in Chicago.

In 1830 Dr. Elijah Dewey Harman made Chicago his home. Next follows the dates of the arrivals of Drs. Maxwell, Temple, Eagan, Goodhue, Kimberly, Brainard, Boone and others. With each, there is a history of when and where they were born, some peculiarities of their lives and when they died, making the book in this respect a very interesting one indeed to the old settlers of that live city. The two steel engravings of Drs. Brainard and Allen are well executed, but we cannot say as much for the wood cut of Prof. Davis, although we can readily recognize his pleasant and intelligent face. We learn that the *Illinois Medical and Surgical Journal* was first issued in April, 1844. Under the editorial management of Jas. V. C. Blaney, A. M., M. D., its reading matter was contained in 16 pages. We also learn that its introductory contains the following; "We have around us three large States: Indiana, Michigan and Illinois, and two extensive territories; Wisconsin and Iowa, filled with medical men of the highest intelligence and most praiseworthy enterprise, and not a single medical journal has been previously issued in all this vast Northwestern region."

We learn that in 1845 and 1846 Chicago had twenty-eight physicians and surgeons.

In 1847 the first general hospital in the city was established chiefly through the instrumentality of Dr. Brainard and his associates.

On pages 52 and 56 there are illustrations of two fine buildings, but there is nothing on these pages nor in the text to inform us what building these pictures are to represent.

We understand that Dr. Chas. W. Stevens, ex-President of

the St. Louis Medical Society is to present to the profession of St. Louis, a like history of the early medicine of St. Louis.

LECTURES ON THE DISEASES OF THE NERVOUS SYSTEM. Delivered at La Salpêtrière. By J. M. CHARCOT, Professor of the Faculty of Medicine, of Paris; Physician to La Salpêtrière, etc. Translated from the second edition by GEORGE SIGERSON, M. D., M. Ch., Lecturer on Biology, etc., Catholic University of Ireland. In one octavo volume of 288 pages. With Illustrations. [Philadelphia: Henry C. Lea.]

These lectures have been presented to the American reader through the *Medical News and Library*, one of Henry C. Lea's admirable little publications which, with the *Monthly Abstract*, now appears under the combined title of *Medical News and Abstract*. To such physicians as have not the late larger works on the diseases of the nervous system, this book would be a valuable addition to their libraries, but to purchase the book under the impression that it is a complete translation of Charcot's lectures would be a mistake. *The Leçons sur les Maladies du Système Nerveux* of M. Charcot appeared in Paris in 1872 and 1873, and was much more complete.

The American medical public has been made quite well acquainted, through the writings of Hammond, with many of the principal illustrations in the book before us. For instance, the three postures of the historical hystero-epileptic *Ler*, reproduced from Charcot by the above author with descriptions in 1856, again reappear like old familiar faces in the book before us. They contributed quite as much as any other feature of Dr. Hammond's treatise, to attract general attention to his book at the time. Fig. 23, p. 241, and Fig. 24, p. 243, appeared in Hammond's treatise in 1876, as Fig. 97, p. 737, and Fig. 98, p. 745.

It does not therefore seem exactly fair in the publisher to give us the Dublin translator's preface without the date, and speak of these lectures as but recently published in Paris. Nevertheless, what the translator says is quite true: "The lectures of Prof. Charcot have taken a place amongst the classic works of medical literature, and so much of them as are here presented are profitable, entertaining and instructive reading. None of the physicians of Salpêtrière, since the great Trousseau, has gained so great a renown as Charcot."

C. H. HUGHES.

Books and Pamphlets Received.

Elongating Hypertrophy of the Femur and Tibia of Opposite Sides. (The Osteitis Deformans of Paget.) By W. H. Daly, M. D., Senior Physician to the Western Pennsylvania Hospital at Pittsburg, Pa. [Reprinted from *The Medical Record*, February 25, 1880.] New York. 1880.

A Text-Book of Physiology. By M. Foster, M. A., M. D., F. R. S. From the Third and Revised English Edition, with notes and additions, by Edward T. Reichert, M. D., with 259 illustrations. pp. 1030, large 16 mo. [Philadelphia: Henry C. Lea's Son & Co. 1880.] For sale by the St. Louis Book & News Co., 307 N. Fourth St., St. Louis, Mo.

Surgery in the Pennsylvania Hospital. By Thomas G. Morton, M. D., and William Hunt, M. D., Surgeons to the Hospital, with papers by John B. Roberts, M. D., and Frank Woodbury, M. D., late Resident Physician in the Hospital. Prepared by Direction of the Managers of the Hospital. pp. 349, 8 vol. [Philadelphia: J. B. Lippincott & Co. London: 16 Southampton street, Covent Garden. 1880.] For sale by the St. Louis Book & News Co., 307 N. Fourth street, St. Louis, Mo.

Electricity in Medicine and Surgery, with Cases to Illustrate, by John J. Caldwell, M. D., Baltimore, Md. Price, twenty-five cents.

On the Nomenclature and Classification of Diseases of the Skin; with Remarks upon that recently adopted by the American Dermatological Association, by L. Duncan Bulkley, A. M., M. D. [Reprinted from *Archives of Dermatology*. April, 1879.]

A New Method of Permanently Removing Superfluous Hairs. By L. Duncan Bulkley, A. M., M. D. [Reprinted from the "*Archives of Dermatology*." October, 1878.] New York: G. P. Putnam's Sons, 1878.

The Microscope and Microscopical Technology. A Text-Book for Physicians and Students by Heinrich Frey, Professor of Medicine in the University of Zurich, Translated and Edited by George R. Cutter, M. D. Illustrated by Three hundred and Eighty-eight Engravings on Wood. Second Edition. pp. 660, 8vo. [New York, William Wood & Co. 1880.] For sale by C. C. Pease, General Agent for Wm. Wood & Co., 514 Olive St. Saint Louis, Mo.

A Practical Treatise on Nervous Exhaustion (Neurasthenia) its Symptoms, Nature, Sequences, Treatment. By George M. Beard, A. M. M. D. pp 198. 8 vo. [New York, Wm. Wood &

Co. 28 Great Jones St. 1880.] For sale by C. C. Pease, General Agent for Wm. Wood & Co., 514 Olive St., Saint Louis, Mo.

The Student's Manual of Venereal Diseases, being the University Lectures Delivered at Charity Hospital, B. I., 1879-'80. By F. R. Sturgis, M. D., pp 16 mo. [New York, G. P. Putnam's Sons, 182 Fifth Avenue. 1880.]

On the use of Water in the Treatment of Diseases of the Skin. By L. Duncan Rulkley, A. M., M. D. Reprinted from the Chicago Medical Journal and Examiner for January, 1880. New York, 1880.

The Therapeutic Action of Quinine, by J. W. Compton, M. D. Professor of Materia Medica and Therapeutics, in the Medical College of Evansville. Reprinted from the Indiana Medical Reporter, March, 1880.

Notes on the Anatomical Relations of Uterine Structures, With Surgical Remarks and Therapeutical Suggestions. By T. H. Buckler, M. D., Baltimore, Md. [Reprinted from the Boston Medical and Surgical Journal.] Cambridge, 1880.

Muscle-Beating; or Active and Passive Home Gymnastics for Healthy and Unhealthy People. By C. Klemm. With Illustrations. [New York: M. L. Holbrook & Co. 1879.]

The Cinchona Cure for Intemperance. By Chas. W Earle, M. D., Professor of Diseases of Children, Woman's Medical College, and Physician to the Washington Home, Chicago. [Reprint from the Chicago Medical Journal and Examiner, February, 1880.]

Address on State Medicine. Delivered before the Tri-State Medical Society, Evansville, Ind. By Thad M. Stevens, M. D., Chairman of Section, Indianapolis, Indiana. [Reprint from the Cincinnati Lancet and Clinic, December 27th, 1879.]

Tenth Annual Report of the Alexian Brothers' Hospital, for the year ending December 31st, 1879, St. Louis, Mo. Incorporated February 22nd, 1870.

Tetanus Terminating Fatally from Enuclation of an Eyeball, reported by Julian J. Chisolm, M. D., Baltimore, Md. [Reprinted from the Archives of Ophthalmology, Vol. ix, No. 1, March, 1880.]

Ethylization: the Anæsthetic use of the Bromide of Ethyl. By R. J. Lewis, M. D. [Reprinted from the Medical Record.]

A History of the Origin and Growth of the Jefferson Quiz Association, together with a condensed account of six years' experience in medical teaching. Valedictory address to the class of the Jefferson Quiz Association, at the Philadelphia School of Anatomy and Surgery, March 10, 1880. By John V. Shoemaker, A. M., M. D. Published by the Association.

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Original Contributions.

ARTICLE XIV.

WHAT IS THE SAFE RULE? By THAD. M. STEVENS, M. D., of
Indianapolis, Ind.

There are several views as to the origin of some of the diseases that are at certain times and under certain circumstances contagious; for instance, typhoid and typhus fevers, some asserting that these may arise under favorable circumstances, from filth, etc., and when started may be kept active by the spread of a specific germ, while others believe them to be specific diseases and never generated by filth, but always as small-pox is supposed to be, from a parent germ.

If typhoid fever, which we admit may be contagious, is at times generated in localities where no typhoid germs have been imported, then small-pox (which is generally held to be caused, in all cases by specific germs thus imported) may under certain circumstances be generated from certain local sources without a specific germ.

Whatever may be the cause of diseases that at any time becomes contagious; what its nature is, what the difference between them, whether they are dying out and being produced without

a parent germ, etc., these questions we leave, but that there is a controlling law we have no doubt.

In reference to the different doctrines, we will say that there is about equal evidence in favor of either of the two modes of supply of germs of contagious diseases, viz: that they come from a parent germ or that they are germinated *de novo*.

It is held that the evidence of contagion is clearer in small-pox than in typhoid fever or diphtheria—because the germ in some way is more active, but this does not touch the mode of origin of such germ, for it may be (and is held by many to be) generated without the presence of a parent germ, while others explaining away all hindrances, assert it is never thus found.

It is true that the greater activity of the small-pox germ to that of diphtheria, etc., leads many and indeed is a temptation to all, to assert that while the former is always generated from imported germs, that the latter may arise spontaneously, but this factor of greater activity ought not in the least to affect such questions. See for a moment as to the proper manner of examination of the points involved.

Small-pox being contagious, it can very often be traced through a continuous chain of cases. It can often be traced out to the case imported and that produce the (to them) parent germ.

It appears among all classes and equally, except as may be accounted for by susceptibility of constitution, etc. Its dying out and subsequent absence from former haunts is explained either by the death of all or nearly all the germs.

Its seeming sudden appearance without a parent germ is explained upon the hypothesis of ignorance as to the imported case, or else that the germ has been lying dormant, watching favorable circumstances to be active, like the seeds from the pyramids. But those who take the opposite views of this question do, and have a right to claim, that as contagion explains nothing as to the source of the germ, it ought not to mislead.

Although each person may have his belief, still, knowledge is so at fault at this point, that he who stubbornly acts in disregard of either of those views may find his mistake too late.

1st. If a disease is always produced from a specific germ that depends for its existence upon a prior one of the same nature, then filth or surroundings cannot at any time enter into its causation, other than being a *nidus* for the infecting germ.

2d. If a disease producing germ may at any time be devel-

oped *de novo*, without the presence of a pre-existing one, then filth and bad surroundings may at time be the active causative of such a disease.

Of course, if filth be either the active causative or acts as a *nidus* or home for such cause, its removal should be the first duty of the physician and sanitarian.

No isolation or quarantine would be of use in preventing the starting of cases, although much in preventing its spread.

The standpoint of the sanitarian, however, is left intact and different views of physicians, their false nomenclature, careless classifying, etc., does not touch the question of the necessity of preventing or removing *filth*.

That the question on one hand as to the origin or source of specific germ connected with contagious or transmissible disease, and, on the other, as to a clearly defined line, distinguishing some forms of such disease from others having their origin in malaria, etc., is not fully understood, may be shown by examples familiar to every physician. For instance, in 1856 or 1857, reports came to us that a disease resembling cholera was prevailing in a certain section of Iowa. Not much was thought of it by our physicians, for cholera was not prevailing in any part of North America to our knowledge. One day a call came to two physicians to visit a patient, who proved to be a gentleman hailing from that portion of Iowa, thus reported infected. All the symptoms of cholera were present. Both physicians had passed through the epidemic of '50 and '51 and knew well what they found. If it was not cholera, then some other form of disease had usurped *all* the pathognomonic symptoms of that disorder. Not only were all the symptoms the same, but also the course and ending of the case. Admitting all this, the question arises, if it was cholera, then how did the germ obtain a fast hold in Iowa?

Either some unhappy case with the "parent" about him had traversed the space between the ancient and constant haunts of the disease, to the point mentioned (which fact may be held as impossible), or the "germ" must have remained dormant for years in some safe and convenient "*nidus*" awaiting the favorable circumstance that finally called it forth to its deadly work. If the latter was the case, what numerous sources of danger lie all about us and who shall say when such dangers of renewed vitality and activity of the numerous vires cease.

If we do not admit either of the above origins of the "germ" at the point in which it first appears, we must ever hold to the generation of the specific "germs" from "filth." "To this are we reduced."

A similar sudden appearance, in an isolated district, so isolated that for thousands of miles surrounding no similar case had appeared, occurred several years ago in Russia, and no solution of the problem has ever reached us.

We know that many physicians have a faculty of explaining the origin of certain diseases by simple assertion. For instance in '73, a disease that was recognized as cholera appeared in various parts of the United States. Reports of this epidemic will be found in Dr. John Woodworth's report to Congress of cholera epidemic of '73. Several cases occurred in Indianapolis, nearly all were fatal. Yet several well informed physicians persisted in classing all such of malarial origin and regarded them as cases of "congestive chills," simply because they could not trace it to any particular imported cases.

A point we wish particularly to discuss is the following: Is the fever, that bears the name of typhoid with us, the same as the typhoid fever of Andral and Chromel?

Any one knowing the medical history of this State (Indiana) for the past forty years and will review that history as touching fevers, cannot, we think, fail to link such cases with those prevailing now.

What is true of Indiana is equally true of any other locality under the same circumstances. In early times the first settlers, by leveling of the forests, the exposure to heat and moisture of the dead exuberant vegetation; in fact, the living in an atmosphere supercharged with that unknown but certain cause of disease, malaria, were subject to a form of fever well described in "Wood's Practice," and well known to early practitioners now living. Sometimes the patient was overpowered or "shocked" to death (congestive chills); sometimes it took the form of what was then termed billious fever, this of a continued or remittent character; again, this same fever often assumed low or typhoid character. Sometimes, in the latter cases, the bowels were constipated, sometimes diarrhœa occurred, sordes upon the gums, muttering delirium, subsultus, optical illusions, etc. These latter cases were termed typhoid cases, and thus the term typhoid fever was gradually applied to all such. The appearance found upon

post mortem examination was not the same as described by Andral, and those that were inseparable from that form of fever he denominated typhoid. Neither was the course similar. The fever of Andral was considered contagious, and is yet held to be so. Not so with the typhoid of the early West. It was neither then, nor is it now contagious, for we have it still, with some modifications. Filth (in its broad sense) was necessary to start each case.

At this time the early Western fever of the pioneers is termed typho malarial, when the low typhoid symptoms appear, but many report *all* such cases as *typhoid* fever. Such may recognize the difference between the true typhoid and the typho-malarial, but by such careless nomenclature they confuse others, and especially the young physician, who, hearing of a case of the latter termed typhoid, confounds it with the true type of Andral, having contagious properties. It does not take a genius to see the harm this does. What then is to be done? If it was the ignorant alone that were confused upon such points as we have mentioned in this article, there might be a remedy; but the best and most intelligent physicians and sanitarians have different views and each hold to such with a tenacity that smacks of some knowledge they possess that is shut out from all others.

If definite and clear ideas were held by all upon the subjects we have touched upon, a great step would be made in preventing diseases. As it is, let us work upon the *safe*, if not the *true* side, viz.: remove filth of all kinds and advocate quarantine and isolation.

ARTICLE XV.

SCIATICA. By A. W. SAWYER, M. D., of Arbela Mo.

The rapid progress towards perfection made in the last few years by the giants in our profession, aided by the microscope, laryngoscope and other implements of positive science, almost establishes the truth of that old well worn maxim, "There is nothing new under the sun." Therapeutics, especially, has loomed up in such grand proportions and with so many new ways, simple and complicated, to put down disease, that in these "latter days" any newly proposed *modus operandi* is almost sure to be met by the reproduction of similar suggestions, dug out of some medical journal, new or old. Nevertheless, it is possible that now and then even a "country member" of the guild, his wits sharpened by pressing necessity, may stumble upon a plan of action new in the conception, and so successful in its application that the practitioner is warranted in spreading it before his brethren at large.

In a large proportion of our cases the most urgent demand is relief from pain, which in some instances is easier promised than afforded. One of these vexatious instances arose against the writer Dec. 18th, 1879, in the person of Mr. W. L. Campbell, a teacher in the public school of Arbela. I found him suffering severely from the pains of a well developed sciatica. This attack had established itself slowly, commencing in the lumbar regions, from whence it extended downward terminating in half of left lower extremity, the two principal points *dolorosa* being about the tuberischii and great trochanter. These with the non presence of swelling, normal temperature, etc., made the diagnosis easy, although a well defined rheumatic diathesis justified a first suspicion that it might be a myalgia. Under ordinary treatment my patient was soon made comfortable and the case might have ended then, but, unfortunately for my man, Christmas was at hand. The attractions offered by an extensive shooting match overcoming all scruples of caution, he exposed himself several hours to the inclement weather. Dec. 26th, I was recalled, finding Mr. C. paying very dearly for his holiday whistle. The new assault was a much worse one than the first, obstinately

resisting measures that, according to Rosenthal, should have procured some mitigation. Wishing after several day's battle to give my patient every possible chance, I voluntarily resigned my charge to Dr. D. B. Fowler of Memphis, one of the best physicians and surgeons in northeast Missouri. Dr. F. had control of the case during seven days—seeing his patient only once in that time—at the end of which period Mr. Campbell again sent for me. I found him, to use his rather rough expression, suffering the torments of Pandemonium. Reserving as a *dernier resort* before turning the sufferer again over to Dr. Fowler and Von Nussbaum's nerve stretching operation, the new French method, namely hypodermic injections of ether with pil phosphorus, comp and iron, I applied over the points doloroso a large section of Grosvenor's belladonna plaster, ordered him half grain pulv. opii, once in four hours, with thirty grains bromide of potassium between opiate doses, and went home determined if beaten again to try in the morning the power hypodermique. Went back at sunrise and found patient entirely relieved, free from pain and feeling, as he said, like a different man. Continued the medicine in reduced doses another day, when further medication was deemed unnecessary. On the sixth day after the culmination of his misery Mr. C. re-entered his school room well, and with a very high opinion of this new (perhaps) way to whip sciatica. After the fight I found in Flint's Practice, page 687, the following, "Recent observations on the effects of bromide of potassium in affections of nervous system," suggests the inquiry whether the preparation may not be found to be efficacious in certain cases of neuralgia. Your scholarly Dr. Gregory might say that my case of sciatica cured itself, and Dr. ——— contend that nature's resistance force in the man's system triumphed abruptly, but I am forced to believe my patient *cured* by the potassic bromide.

ARTICLE XVI.

PROPHYLACTIC TREATMENT OF HYDROPHOBIA. By W. S. D. JOHNSON, M. D., of La Belle, Mo.

I would not contribute this article to the ST. LOUIS MEDICAL AND SURGICAL JOURNAL with the view of contributing any new light in regard to the prophylaxis of hydrophobia, but simply to add a mite to the already established fact, that the only safe and proper treatment of what is usually termed hydrophobia, or more properly rabies, is prophylactic, so far as I am informed to this writing, and I know of no better prophylactic agent than the knife for the *complete extirpation* of the wounded parts made by the teeth of a rabid animal, and the sooner the better, as delay would endanger the life of the patient.

I have been in the regular practice of medicine for upwards of thirty years, in which time I have not seen a single case of rabies in the human subject, but have in inferior animals, and have seen and treated two different patients, both men, bitten by dogs proven to have been rabid at the time those men were bitten, and I now regret I have not the exact dates, but will give them as nearly as I can.

At some time during the year of 1859, John E. Jennings of this (Lewis) county, was bitten by his own dog which had been acting very strange to him, the particulars of which I will give as near as practicable, viz: The dog was known, by all the neighbors, to be a very severe and vicious animal, and I would say during all the time I have been in the practice of medicine, I think he was the severest dog I have ever seen, and his master, Mr. Jennings, was compelled to keep him chained in his dooryard to keep him from biting his visitors; but finally the dog became very restless; just at daylight one morning he got loose, and had a fight with Mr. Jennings' other dog; he was then seen to bite one of his hogs. The dog then came to my house, about a half a mile off, and ran about my dooryard snapping at the chickens, but did not bite any of them, after which he went to a nearer neighbor's, where he had a fight with another dog, and also bit a calf. The dog was then secured by Mr. Jennings,

who attempted to drag him home, and failing in this tried to coax him and while patting him the dog seized his hand in his mouth sticking his teeth through the cutis vera, inflicting, I think, four wounds in his hand. Nothing was yet thought of a rabid animal. Mr. Jennings finally got his dog home and fastened him as usual; but he escaped almost immediately, and was followed and killed.

Now, was the dog mad, was the question. The subject was discussed pro and con. Mr. Jennings became seriously alarmed, and went to Palmyra, where he procured a "mad-stone" and the next day he came to me and reported the mad-stone would not stick, and asked my advice. After getting a history of all the dog's actions and believing the dog rabid, I advised extirpation of *all* the wounds, to which Mr. Jennings, holding out his arm, said, "take my hand off here if you think best," pointing to his wrist; but I simply extirpated the four wounds made with the teeth of the rabid dog, by thrusting the point of a tenaculum through the integument on one side of the wound, carrying the point below and out on the other side, thus enabling me with the use of the scalpel to remove each of the wounds entirely, after which I cauterized the wounds made by the operation of excision with nitrate of silver, and afterwards ordered the verdigris dressing twice daily and maintained the discharge of pus for ten or twelve days. This constituted *all* of the treatment. This is all I did for my patient and he is still living, making a period of upwards of twenty years since I operated on his hand, but the question is, was the dog that bit him rabid or not? I would say yes, from the fact that Mr. Jennings and Mr. Mitchell each made a strong rail pen and penned their bitten hogs respectively, by my request, and within ten or twelve days both of their hogs became the subjects of rabies and at the latter part of the fourth or the beginning of the fifth day both died of the disease, and none other of their hogs died but the two that were bitten by the dog and penned.

Now, as for the two other dogs bitten by the rabid one, I would say Mr. Mitchell killed his the next day after he was bitten, while Mr. Jennings let his run at liberty, but about the time the two hogs become rabid the dog disappeared and was never heard of afterwards, which establishes beyond controversy rabies of the dog that bit Mr. Jennings. *I saw* the two hogs frequently while rabid, and know what I affirm.

The other case was that of Mr. Peter P. Pulliam, who was bitten by his dog in 1862, seventeen years ago, whom I treated just as I did Mr. Jennings' case, with the same result. In this case Mr. Pulliam's dog bit him, several dogs and a heifer belonging to a Mr. Gabriel Long; all the bitten dogs were killed, but the heifer was not, but kept in a pasture and within ten or twelve days afterwards became the subject of rabies, and within four or five days after died, as did the two hogs, above mentioned.

Both of these men, John E. Jennings and Peter P. Pulliam, are still living and can be addressed at the same post office, Maywood, Lewis county, Missouri, while every animal bitten by the two rabid dogs, that was not killed, become rabid and died, which shows conclusively that extirpation of wounds made with the teeth of rabid animals is prophylactic to hydrophobia, and I would advise the excision of all wounds made with the teeth of animals suspected of hydrophobia, lest both the patient and physician become the subjects of regret, and would here, in this connection, say that what is termed mad-stone is worse than useless, as parties may be induced to risk it while they afford no protection against that dreadful malady of hydrophobia.

ARTICLE XVII.

MOUNTAIN FEVER AND MALARIOUS WATERS, SWAMP FEVER AND MARSH MIASM. By CHARLES T. REBER, M. D., of Shelbyville, Ill.

Every once in a while we meet with something that is overwhelmingly absurd. In the *Clinical Record* for February, 1880, pp. 333 to 335 is found an article which brings this matter of overwhelming absurdity to the surface.

Therein is demonstrated the fact that the so-called malarial fevers, intermittent, remittent and typho-malarial are the same diseases whether they occur amid low swampy places and stagnant foul waters or in the elevated regions and on the banks of swiftly running streams of cold water of the Rocky Mountains. This fact has, however, been known for many years. But to account for the occurrence of these diseases in the elevated inland

regions mentioned, on the hypothesis of organic germs carried there by the winds from the "fever infested regions of the Mississippi Valley and the shores of the Mexican Gulf, to be precipitated with the snows of the Rocky Mountains," is one of those overwhelmingly absurd things. Why is it necessary to invent so monstrous a hypothesis? Because of the erroneous notion, that the diseases named are caused by a certain malarial germ having specific effects upon the human organism; and because it is not possible that this supposed germ could be developed in conditions so dissimilar as those existing between low hot swampy, and high cool airy places, as those of the St. Johns River, Florida, and Clear Fork of Powder River, Wyoming. Consequently it becomes necessary to erect so wild a hypothesis as that these germs have been wafted a thousand miles to an elevation of 10,000 to 12,000 feet by the winds and in a direction in which the winds seldom blow!

We are informed that the troops "had been rendezvoused at Fort McKinney, Wyoming, late in the spring," "that they took the field, May 24, in splendid condition, not a man sick;" then is given a statement of the camping grounds, etc., which was quite the opposite of marshy. It next states: "The command remained here until July 15, during which time a few cases of intermittents appeared, *in all of which there was a history of previous malarial toxæmia*. The italics are mine. When had this intoxication occurred?

"May 24, the troops were in splendid condition, not a man sick." But now, July 15, upon being attacked with intermittent, we are to be content with the information, that "there was a history of previous malarial toxæmia!" Did these men have the intoxication the year just previous to 1878, or how long previously? and what sort of a scaffolding of hypothesis is it necessary to erect to show why there was not any earlier manifestation of the *toxæmia*? What of this *toxæmia*, about May 24? Subsequent to September 5, "*after a severe march, great privation and exposure, numerous cases occurred, some of them of the typho-malarial type and of whom one died.* In regard to these, nothing is said of previous malarial toxæmia and we are, I suppose, warranted to think that they had never before had the disease. But here the editor, pp. 338-9, comes to the assistance of the hypothetical germ and *diffidently*, suggests that by its "being continually introduced (re-introduced) into the body,

etc., it may become modified so as to be "capable of reproducing itself therein and of infecting other persons by way of the intestinal canal." We are impelled to ask, *is there no limit to the possibilities and power for mischief of this specific germ.*

To what straits will this merciless malignant bug yet bring the human family? Yet how singular and how fortunate that it attacks and punishes, mainly, only those who evidently violate the ordinary laws of health; by undue exposure to extremes of heat and cold, dryness and moisture, cold chilly winds and rains and to physical over-exertion and intemperance of various kinds.

If the experiments of Klebs, et al, have shown that the poison of ordinary malarial fever is of cryptogamic origin, what object is there in any further inquiring on that point? It will certainly be a long time before the human mind becomes sufficiently subtle and credulous to construct and believe a series of hypotheses so rudely contrary to firmly established facts. Is it expected to so educate the human mind that it will believe that this germ reaches its full development through various stages, as a mosquito or a moth does, and that it produces a specific effect, a specific disease, in each of its stages of development? And that it may produce all the manifold diseases evidently due to the cause in question or lie quiet in the system, "the men being in splendid health," that it may be promptly violently active or indefinitely latent at its own capricious choosing?

Permit me to add, that the inhabitants of the Mississippi Valley have great cause to deplore the trained, biased, unjust notion that they live continually in a region infested by a specific malignant disease germ by which they may be doomed to destruction at any moment. It is fortunate that many of them have learned from their own observation and in spite of the teachings of the profession, that this lamentable hypothesis is utterly without foundation.

It would be interesting to know at what particular stage in the life of the bug it produces the disturbance noticed in a case that came under my care quite recently.

Mrs. S. D., æt. 24 years; three weeks after her second confinement and when she had about made a complete recovery, therefore had a partial loss of appetite, a slightly coated tongue, highly colored urine, constipated bowels, some headache and muscular soreness for two days, when at 3 A. M., she was attacked with a severe pain in the epigastrium and right hypo-

chondrium, with great tenderness over said region. She was relieved from her suffering after taking three $\frac{1}{2}$ grain doses of sulph. of morph., three-fourths of an hour apart, and the application of mustard. There had been no disturbance of her temperature. She was then given $\frac{3}{4}$ ss. of bitartrate of potash with a view to its action on the liver, bile passages and intestines. It acted well by the following night, but at 3 A. M. the next morning another paroxysm like the one of the previous night occurred and was treated in the same way with a similar result. There was then given 10 grains of calomel, followed in two hours by sulph. of morph., and a free action upon the bowels was again had in the course of the day; but at the same hour on the following morning she was again awakened by the recurrence of a very severe paroxysm of pain. In three or four hours, after having used the same means for relief, she was again free from pain, although some tenderness on pressure was still present. She was now given 5 grains of cinchona, followed in half an hour by some lemon juice every three hours. She took 25 grains previous to 3 A. M. on the following morning. At that hour she had fallen asleep; at about 4 A. M., she was awakened by a feeling of distress in the region where the pain of the previous nights had occurred, but it was not severe and kept her awake for only about half an hour; then she again fell asleep without having taken any medicine or used any means whatever for its relief. During the following day and up to midnight of the following night, the cinchona was continued; since then there has been no return of the paroxysm and she is now in good health without having taken anything further.

During the whole course of this case, there was not any disturbance of temperature, no fever and but slight disturbance of the circulation and which appeared to be mainly due to the pain.

Now, if the several cases of different types of the fever which occurred in the Rocky Mountains were caused by modifications of the same germ (and as I have no doubt that the periodic pain in the case above reported, was due to the same cause as that of the Rocky Mountain fevers), what special modification or stage of development of the bug was present in this case of typical bilious colic? Or is this modification peculiar to women who have been recently confined? *Quien sabe!*

Reports on the Recent Progress of Medicine.

OTOLOGICAL EXCERPTA. By S. POLLAK, M. D., of St. Louis.

THE TRANSMISSION OF SOUND TO THE EXPANSION OF THE AUDITORY NERVE, AS COMPARED WITH THE TRANSMISSION OF LIGHT TO THE RETINA. (WHARTON JONES, *Lancet*.)—The distinguishing characteristics of the parts of the eye which transmit the light is *transparency*, that of the parts of the ear which transmit sound is *vibratility*. Whilst both these physical properties are prone to be impaired or destroyed, the special nervous expansion peculiar to each organ may have its energies enfeebled or annihilated by various morbid influences; so there is blindness in the one and deafness in the other, against which we have to struggle.

The membrana tympani being thrown into vibration by sonorous undulations which the air in the auditory passage has received from without, communicates undulations to the air in the tympanic cavity, which undulations again throw the membrane of the fenestra rotunda or cochlear fenestra of the labyrinth into vibration. From this vibrating membrane of the cochlear fenestra, undulations are propagated to the *perilymph*, the watery fluid which fills the *scalæ* of the cochlea and intervenes between the walls of the rest of the osseous labyrinthine cavity and the membranous labyrinth. The membranous labyrinth within which are the expansions of the auditory nerve, together with the viscid fluid named "*endolymph*," and certain calcareous concretions named "*otolites*" is struck by sonorous undulation from the *perilymph*, and so the auditory nerve receives the impression of sound.

Whilst comparing the membrane of the cochlear fenestra with the cornea, we might compare the cavity of the cochlea with the chambers of the aqueous humor, the *perilymph* with the aqueous humor itself, the *lamina spiralis* with the iris, the *helicotrema*—or aperture by which the *scalæ* of the cochlea communicate with each other—with the pupil, the *endolymph* with the vitreous, and the calcareous concretions with the lens.

ACCUMULATION OF CERUMEN SIMULATING CHRONIC BRONCHITIS. (LEASON, *Lancet*.)—Mrs. V. had suffered at intervals of from three to five years several attacks of acute and sub-acute bronchitis, from which she recovered, her lungs being left fairly free from physical signs, but which slowly then increased, much to her discomfort, and defied all treatment. She had a violent morning cough, lasting oftentimes nearly an hour, and terminating with vomiting about half a teaspoonful of glairy mucus. So severe was this morning cough, that she dreaded rising, having generally to rest several times during dressing from exhaustion. The bowels and bladder were relieved almost involuntarily. All sorts of plans, schemes and remedies were tried, but without success, and the case was abandoned as being a hopeless one of chronic bronchitis.

For about two years she had suffered from increasing deafness, and had also lost hearing on one side. Lately she began to complain of the good ear being affected, and one morning I was called to see her, on account of almost complete deafness.

On examination, both ears were found filled with inspissated cerumen, which, after much syringing and soaking with oil, was removed, and her hearing was completely restored. From that day she has entirely lost her cough and sickness, and appears to be quite another woman.

Accumulation of cerumen in the ears and bronchitis both chiefly affect those advanced in life. It may be that a connection between the two as cause and effect, has hitherto been overlooked. However, in any case of prolonged and troublesome cough, which resists the ordinary remedies, careful examination of the external auditory canal should be made.

The explanation of the case is now easy: the cough was simply a reflex one. Aural surgeons know, that foreign bodies in the ear are frequently attended with dry cough. Coughing can be excited by tickling the auditory canal.

In this case, the stimulus seems to have traveled down the vagus, stopping a little while at the pulmonary plexus, and then following the pneumogastric through the diaphragm to the stomach, causing in the first place a flow of mucus and secondly vomiting.

The anatomy is more difficult. The auricular branch of the pneumogastric nerve supplies the skin *on the back* of the ear, whilst the skin of the external auditory canal is supplied by the

auriculo-temporal branch from the third division of the fifth. This being proven by dissection and by the frequency of earache accompanying toothache and malignant disease of the tongue, by the stiffness of the jaws accompanying earache.

A MUSICAL TRIANGLE. (REHMANN, *Archives of Otology*.)—As a musical triangle, he describes a configuration of the vocal cords, by which on their surface a triangle is discovered that is acute or obtuse, according to the tone register of the individual examined. By such a triangle some conclusion can be drawn as to the tone formation which would be of value in instruction in singing.

LOSS OF HEARING FROM A KISS UPON THE EAR. (ROOSA & ELY, *Archives of Otology*.)—Mrs. H., æt. 42. Last winter her husband came up behind her as she sat reading and kissed her suddenly upon the right ear, taking her completely by surprise. She suffered a great shock, and had a roaring in the ear for some time. The incident made her very "nervous" for two or three weeks afterwards. During the past summer she was told by her relatives she was becoming deaf on the right side. She paid no attention to it, until six weeks ago, when she tried her right ear with her watch and found she could not hear it. She could hear a whisper with the right ear during last winter and spring. Has had occasional tinnitus after taking cold. Enjoyed music formerly, but does not now. The piano practice of her children annoys her. Whistling is particularly disagreeable. All noises disturb her somewhat, so that she "felt afraid that she was becoming nervous." General health good. Menstruation regular. No cardiac trouble detected. Father died of paralysis. H. D. R. $\frac{P}{40}$, L. $\frac{40}{40}$.

Tuning fork on teeth or vortex seemed louder in the left ear. It slightly intensified in the right by plugging, but much more in the left. Aerial better than bone conduction on each side. The drumheads are both alike and show nothing to account for deafness. Air enters the right drum by both catheter and Politzer's method, but does not alter hearing. All notes of the piano are heard, but do not sound "clear." Naso-pharyngeal space and the mouths of the Eustachian tubes are found normal.

This seemed to be a case of deafness from affection of the labyrinth, with no apparent cause except the kiss upon the ear. The concussion from the kiss may have caused the loss of hear-

ing at once; or, as seems most likely, it may have produced changes in the labyrinth, which, in combination with the general nervous shock, served as a foundation for a gradual loss of hearing subsequently—as, for instance, by some atrophic process.

SERIOUS SYNCOPE FROM INFLATION OF MIDDLE EAR BY POLITZER'S METHOD.—(ROOSA, *Archives of Otology*).—Miss P., æt. 19, complaining of deafness, and “confused feelings” in the right ear. There was a history of pain and discharge in that ear after scarlet fever, at the age of two and a half years.

The hearing was R. $\frac{2}{4}$, L. $\frac{4}{8}$. Tuning fork on teeth heard better in left ear. Right drumhead cicatricial and hyperæmic. Left sunken, no light spot. After inflation by Politzer's method, she had a serious attack of syncope, from which recovered very slowly. At her next visit she fainted again after a most gentle inflation through Hinton's tube. The catheter was not used at either visit.

The improvement in the hearing and in the sensations of the right ear from inflation made her “feel strange,” and this may have had something to do with the fainting. She had a very nervous temperament and was anæmic. She gave the impression of being too tightly laced, and of being improperly managed generally. Dizziness after inflation is not uncommon. Syncope from inflation by Politzer's method, properly performed, has never been recorded before.

Proceedings of Medical Societies.

TRI-STATE MEDICAL SOCIETY.

EFFECTS OF MATERNAL IMPRESSIONS ON THE FŒTUS IN UTERO.—

By W. B. FURMAN, M. D., of Henderson, Ky.

MR. PRESIDENT AND GENTLEMEN :—As a committee on "Effects of Maternal Impressions on the Fœtus in Utero," I find myself charged with a subject extremely obscure, and one but illy illuminated in medical literature; a subject best viewed from a physiological and psychological standpoint. The study of embryology affords us additional light. Still it must be confessed that our most reliable and positive evidence is furnished, not from a train of scientific reasoning, but from certain causes leading directly to *results*, these results or effects having direct relation with the cause and occurring with far too great frequency and regularity to be ascribed to *simple coincidence*.

That the delicate yet powerful forces of nature operate through the mother in producing hereditary diseases and deformities, as well as beauties, all are prepared to admit. That *maternal impressions* influence the physical formation of the fœtus, there is not by any means the same unanimity of opinion in the profession. A correct knowledge of the intricate and beautiful nerve distribution, which each is supposed to possess, adds materially to the interest as well as progress in tracing out the physiological relation of the mother to the fœtus, and the development of the latter.

The co-relation of the physiological and psychological forces is unquestionably demonstrated, *and forcibly*, in the effects of impressions upon the mind, giving such results as fall under our observation in this connection. The cells of the cerebral centre, with their regular supply of minute nerve filaments, reflect to the extreme bounds of nerve distribution *impressions*, these impressions increasing, decreasing or radically changing cell growth in certain tissues or organs.

Epitomizing the process of conception and pregnancy, we have first the fertilization of the ovum, its discharge through the Fallopian tube, its reception into the folds of the mucous lining of

the uterus, here becoming rapidly surrounded and covered by the decidua reflexa. Nourishment is supplied by means of the villi of the chorion, they receiving by endosmosis and transmitting elements of nutrition from the mother.

After the third month, we have a portion of the villi transformed into the foetal placenta, the remainder undergoing atrophy, the placenta delivering to the child vitalized aerated blood through the umbilical veins, the blood returning from the child through the umbilical arteries loaded with carbonic acid and tissue waste, to discharge through the placenta, by exosmosis, the products of decay. A remarkable evidence of the individuality, so to speak, of the foetus is shown in the independent development of the blood corpuscles, the process being described thus by Paget: "As described by Vogt, Köllicker and Cramer, they are large, colorless, vesicular, spherical cells, full of yellowish particles of a substance like fatty matter, many of which cells are quadrangular and flattened and have been called *stearine plates*, though they are not proved to consist of that or any other unmixed fatty substance. Among these particles each cell has a central nucleus, which, however, is at first much obscured by them. The development of these embryo cells into the complete form of the corpuscles is effected by the gradual clearing up (as if by division and liquefaction) of the contained particles, the acquirement of the blood color and of the elliptical form, the flattening of the cell, and the more prominent appearance of the nucleus."

Carpenter declares that "the first red blood corpuscles have their origin, like the original cells of the solid tissues, in the primordial cells of the germinal structure, and it is in the so-called 'vascular layer' of the blastodermic vesicle, and in the mass of cells which constitute the rudiments of the heart, that this metamorphosis seems first to take place."

While the above statements are probably correct, the fact should not be lost sight of, that without a constant supply of pabulum from the mother, the foetus must perish; so that, while the blood corpuscles are formed in a manner apparently independent of the mother, it is clear that within the pabulum conveyed, exists the essential elements of vitality and development.

We can scarcely claim that maternal impressions invariably affect the mental or physical formation of the foetus; that the barriers erected by nature's conservative forces should be over-

leapt, at times, and a lasting impress photographed upon the child, we have testimony which it is difficult to disbelieve.

Believing that such impressions are conveyed to the child through (or rather by means of) the nervous system, we are confronted by the fact that, between mother and child, no direct nerve connection exists, the most careful researches of physiologists failing to demonstrate satisfactorily such connection. We are left to conclude that it is through *the blood* that all development is wrought in the foetus, from its earliest conception to separation at full term. The vital fluid itself, as we all know, is prepared in the alimentary tract, elaborated under control of the nervous system, to be conveyed under the same guidance, to meet the requirements of development and repair. To this view it may be objected that the mother's blood cannot pass through membranous tissues, all fluids from mother to child passing by endosmosis, and that the theory of influences, being conveyed by this method, must therefore fall. That the child is nourished from the mother alone by an endosmosis of certain elements of the blood, must be admitted. In order, however, to sustain the foetus, it must be vitalized, and its chemical affinities preserved. Being the only demonstrable channel of communication, we adhere to the proposition as expressed.

To further sustain this position, we may call attention to the fact (which many of us have seen demonstrated), that children are born in the eruptive stages of the zymotic diseases, and exhibit, like the mother, an unmistakable eruption. How else than through the blood could the specific germs of these diseases be communicated?

In volume xxv. of the *Richmond and Louisville Medical Journal*, I have read, with great interest, a very ingenious paper from the obstetrical section of the Toledo Medical Society, by Thomas Waddell, M. D. After reviewing the subject (which we are considering) at great length, he concludes thus:

"Providence has not left the development of the human foetus to the maternal whims and caprices, to an imitative metamorphic power, which would result in reproduction of every object which impresses the mother's mind with disgust and horror. We can but admire the provisions which have been made to shield it from such influences. Up to the third month its attachment is far from being intimate, very recent investigations showing that as late as the second month the ovum is loosely attached to the

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uterine decidua. It is certainly not reasonable that the mother can influence the foetus at such a time and under such anatomical conditions.

"Yet modern experimental embryology proves that the causes of foetal abnormalities have their origin in that period of embryonic life, while the embryo is still homogeneous blastema.

"After the formation of the placenta these protective conditions still obtain, for the vessels of the cord and placenta have no vaso-motor nerves, thus effectually shutting off the injurious influences of the mental perturbation of the mother."

Concluding, he declares that "Facts are strongly confirmatory of this reasoning, as witness the great frequency of mental impressions of the mother, and the rarity of deformity."

It is but necessary for us to call attention to a few of Dr. Waddell's premises, to show what little logic there is in these deductions. He says, "During embryonic existence, certain parts may be hindered or arrested in their development, while the other organs, not directly connected with them, may continue their evolution and become fully developed."

This we do not deny; but does the fact, by any means, strengthen this position?

Again we read, "Any agency causing arrest of development of any portion of the foetus, must necessarily operate prior to the evolution of that part." I ask how is it possible to prove this statement, which is declared "a fact?" As close an observer as Dr. Seguin declares that, "Impressions will sometimes reach the foetus in its recess, cut off its legs or arms, or inflict large flesh wounds before birth."

Again we read, "Such peculiarities, in common with family resemblances, are frequently transmitted through generations." We readily admit this, but fail to see how the fact would assist them in reaching these conclusions.

He declares, "that the development of the abnormality in such cases (monstrosities) depends upon local anatomical causes, and is governed by definite laws." This is a bold statement. What laws can be shown in embryology to prove this assertion?

He then asks, "Can the mother's mind so act on the foetus in utero as to cause its arrest, in whole or in part, and produce resulting deformity?" Dalton, Hammond and Carpenter declare affirmatively. The latter says, "These effects (mental impressions) may be manifested, either in the general atrophy and

death of the fœtus, or the imperfect development of certain parts of it."

We are asked, "Can the mother's mind produce the diseases of the uterus and its membranes, which result in false bands or adhesions, which cause amputations and other deformities?" Who can doubt that various conditions of the mind are often productive of local disease? If we admit they are not, for argument's sake, can it be proven that uterine disease has ever produced deformities or monstrosities? Let us for a moment consider the very great number of child-bearing women laboring under uterine diseases; yet how many of us have observed, as a result, the limbs of their children encircled by adhesions, or amputated thereby?

Again it is asked, "Is it possible for maternal influences to destroy or deform one fœtus in utero while another, enclosed in the same membranes, is uninjured?" We would ask, why not? Scores of instances showing arrest of development of one fœtus, in cases of twins, are on record, and without evidence of local disease of the mother to account for the lack of development.

Dr. W. finally declares that "every known form of monstrosity found in man has its analogue in the lower animals—birds, fishes and reptiles;" and asks, "If such deviations from the normal state obtain in fish and fowl under circumstances precluding maternal influences, how is it possible to ascribe them to such influences when occurring in the human race?"

Are any of us prepared to accept the comparison as just, or the analogy as perfect? Were we forced to accept the position he would drive us to, how disingenuous and incorrect his conclusions, for by what process of reasoning or speculation could we deny to those little animals the influence of maternal impressions, in determining changes in the ovum, after (while at the same time claiming that impressions may operate) it is encapsuled and shut off from the mother's influence?

There are many determining causes, of which we can judge only by effect. We would be rationalists and skeptics, indeed, to believe nothing except what is capable of demonstration, otherwise than by effects produced.

None will question the fact that the influence of sunlight is essential to all vegetable growth; yet who can explain fully or satisfactorily its *modus operandi* in bringing forth the tender

blade, the elegantly tinted flower and green leaf, those beautiful results we recognize with our senses.

We would cite a most striking instance authenticated by Carpenter, as showing the wonderful influence of impressions in controlling the process of nutrition: "A lady who was watching her little child at play, saw a large window-sash fall upon its hand, cutting off three of its fingers. She was so overcome by fright as to be unable to render it any aid. A surgeon, who was speedily summoned, having dressed the wounds, turned to the mother, who sat moaning and complaining of pain in her hand. On examination three of her fingers were found swollen and inflamed, though they had ailed nothing prior to the accident. They sloughed afterwards, discharged, and the wounds ultimately healed."

Again, the influence of violent emotions and impressions on the various secretions is not doubted. Especially is this apparent in the secretion of the mammary glands, the flow of saliva and of the tears.

Returning to our subject proper, Carpenter expresses the opinion that, "It cannot fairly be thought improbable, that the developmental processes of the embryo should be *powerfully affected* by strong emotional excitement, on the mother's part. He calls attention to the fact, that during the siege of Loudon, in 1793, out of 92 children born in that district, within a few months afterwards, 16 died at birth, 33 lingered and died in a brief period, 8 became idiotic, and died before 5 years, while 2 were born with numerous fractures of their limbs. Showing out of 92 children, 59 destroyed, through the medium of the mother's emotion and fear."

Carpenter then declares "The view here stated is one which ought to have great weight in making manifest the importance of careful management of the mother, during the period of pregnancy, since the ultimate constitution of the offspring so much depends upon the influences thus operating upon its most impressible structure."

We assume that maternal impressions influence the fœtus, through the nervous system, and by means of the blood, since it is the only means of communication. Do we find results from these operations? Most assuredly; and in well authenticated instances, we have the result foretold by the mother, before she sees the newborn babe, by lamenting its deformities.

The question naturally arises if maternal impressions possess the power of determining changes in the unborn, at what stage are they most operative, and does their action cease as pregnancy advances?

We believe these influences to be more powerful during the earlier weeks and months of pregnancy, otherwise nature would be compelled to undo what she had already accomplished, thus moving in direct opposition to her established laws of order and progression.

Dr. Tyler Smith says that "The whole human fabric is the result of *fission* an innumerable number of times repeated, of the single fertilized embryo cell."

In the plastic state, with a rapid aggregation of cells, though the connection with the mother might not be very intimate, how reasonable that through undue disturbance of the presiding centres, changes of supply and demand might be determined. Later the embryo, as it were, attaining individuality and solidity, and becoming better prepared to resist arbitrary changes.

An interesting fact, and one difficult to account for, is exhibited in the resemblance borne the father of the first offspring, by the following progeny, the latter being by a different father. This is commonly observed in the inferior animals; indeed, it is well recognized, and accepted by farmers and stock raisers. We are prepared to accept the same theory of mental impressions through the nervous system of the mother in explanation of these results.

We believe that abnormalities of the pregnant state occur, which can by no means be ascribed to the effect of maternal impressions, for instance the bearing of twins, double monsters, and hereditary diseases. Double monsters are shown by microscopical examination to originate in a single ovum. Dr. Dunster says "If we assume that a double primitive trace is laid down on a single ovum, or that a single primitive trace splits by fission, more or less completely into two, we can easily account for the formation of double monsters, for first the sex must be the same, and second the union will be homologous."

We sometimes find abnormalities of the fœtus from a knotted condition or an encircling of the cord around one extremity. I have within the last few days received a letter from Dr. S. S. Thorn, of Toledo, who gives the following account of a case in point: "I have now in my office a four months fœtus, cast off

because of impeded circulation through the cord. The cord surrounds the left thigh, in the lower part of the middle third, the loop being a single knot. At delivery there was considerable constriction at this part, the thigh and leg being much reduced in size below the constricting band. Amputation was evidently under way." This is a fair illustration of the effect of a purely mechanical cause. We are justified in regarding such cases as extremely exceptional, and believe that when amputations occur as a result of maternal impressions, it is by an absorption of the part, the process being determined by the forces regulating nutrition and residing in the vital fluid.

All who contend that amputations occur solely as a result of constrictions, readily admit that the amputated extremities are scarcely if ever found on delivery, and believe that after amputation they are absorbed. I would ask if these forces are capable of accomplishing absorption after amputation, why may not the same forces operate prior to such an event; in fact why should the constriction be by any means necessary? Going behind all this, however, will any assert that these bands or adhesions must depend upon a local diseased condition, and may they not rather have a prime cause in disturbances of the nervous centres, which unquestionably preside over the whole process of conception and pregnancy?

Could we show beyond cavil that the nervous forces operate upon the unborn in the grade of animals, next to men, their applicability to a higher order of life, would convey some force.

Sacred writ teaches that the Patriarch Jacob ignorantly yet successfully availed himself of the device of erecting wattles before his watering troughs, the rods being alternately white and dark. Here the sheep during conception and pregnancy drank, with the result of producing a large per cent of ring-streaked and speckled progeny, thus depleting old Laban's flocks.

It is contended by sportsmen that the bitch, in order to produce a sagacious and ready progeny, should be hunted during pregnancy, and I can give it as my experience, that among such offspring I have found the best hunters and retrievers.

I hold in my hand a specimen kindly furnished me by Dr. J. H. Letcher, which he denominates the elephant pig. Examination discloses the skin, head, trunk and ears of the elephant. It possesses the following history: It was pigged some months ago, and brought to Dr. Letcher, who, on inquiry, learned that about

six or eight weeks previously a menagerie had passed through the streets of Henderson, having with it several elephants; that they were seen by this then newly pregnant sow. That they approached very nearly to and frightened her is probable. We infer she saw the elephants, a profound impression was made, this was transmitted by nerve influence and by means of the blood to the organ just at that time, in the most exalted and susceptible condition, finally imprinting upon this much of her progeny the skin, trunk, head and ears of the frightful object beheld.

The impression most probably was not soon forgotten, so as cell growth progressed (under the stimulus), we have finally the pig at full term, with the perfect physiognomy of the object of its mother's dread. Dr. Waddell would perhaps tell us gravely that this sow was no doubt laboring under some local disease of the womb or membranes.

A case identical with the above, and well attested, occurred several years ago at Shawneetown, Ill., the pig exhibiting, like the specimen presented, the skin, head, trunk and ears of the elephant, which a short period before had passed through the neighborhood.

Regarding comparative embryology, these illustrations must suffice in this brief sketch. If we descend lower in the scale of animal life, the analogy must weaken, there occurring in the higher order of animal life *no period of incubation*, after separation of the ovum, from the maternal influence. In the egg producing class, it is claimed that deformities and monstrosities can be produced by external impressions upon the egg, viz.: By heat, irregularly applied, by cold, by position, etc. This, as we have before stated, proves nothing, for each egg experimented upon may, before its separation from the mother, have contained a monstrosity, and being subject to external impressions *after separation*, must surely have been subject to impressions, from the mother, while in the plastic state, and undergoing cell proliferation and growth.

In the human family, instances have come under the observation of perhaps every member of this society. We will offer a few illustrations of our subject. Dr. Thos. Taylor, of Henderson, relates the following instances as occurring under his observation: A lady who had a great antipathy to frogs, was very much startled and alarmed (being several months advanced in pregnancy) by having a tree frog to spring upon her. After the

birth of her child she requested that it be examined immediately, stating that it would be found marked with the impress of the frog. Examination revealed the exact image of a frog upon the inner side of the child's thigh.

Again Mrs. H., being two or three months advanced, was reclining on a sofa just under an open window. While she was asleep a jackass which had been browsing in the yard came up, and putting his head through the open window brayed just over the sleeping woman, who awoke terrified. She was delivered of a child, still-born, having the head and complete ears of the jackass.

Dr. P. Thompson vouches for the following: A family servant woman, being pregnant, was one day, while crossing the lawn, attacked by a ram and by him struck to the ground and terribly shocked. Her child at full term exhibited, though a full blooded negro, the peculiar white looking eyes of the sheep, and as he grew up his hair, though kinky, was perfectly white like wool. In addition to this, and more remarkable than all, he always gave forth the peculiar scent of the sheep, it being especially marked when he was heated and perspiring freely.

Dr. S. Furman gives the following as occurring under his observation while in Florida some years ago: A lady about two months pregnant sat on her porch, when she saw a large land turtle or gopher making its way under the house. She called to a servant, who rushed out with an ax, and before the lady could interfere crushed in its skull with the keen blade. The lady fainted, and at full term was delivered of a monster with the rounded body and peculiar feet, or rather paws, of the gopher.

Dr. Trenholm, of Montreal, Canada, in No. LV of the *Obstet. Jour. of Great Britain and Ireland*, states that the following cases occurred under his immediate observation: When somewhat more than half advanced in gestation, a pregnant woman's youngest child was brought home with the skin of its forehead cut open and the face covered with blood. When the babe was born it had the side and front of the forehead depressed, the eyes out of their natural position, with a well defined cicatrix, in the exact position of the cicatrix on the face of the injured child.

He says: "In another instance, a friend of mine while pregnant saw a man going along the streets on his knees, both legs having been amputated below the knee-joints. The sight so

disgusted and horrified her that she could not banish the impression from her mind. The result was that *both limbs* of her child were absent, to the same extent as in the person whose disfigurement had so miserably impressed her."

Dr. Weis, of Hagerstown, Maryland, mentions the following as occurring in his practice: "A lady during pregnancy carried with her a pocket edition of Moore's poetical works, which she read almost constantly. Her child at three years of age exhibited a most wonderful gift of putting sentences in rhym; in fact, naturally expressed his little ideas and thoughts in flowing measure."

So we might go on multiplying instances did time permit, or were it necessary to do so. The illustrations given are but a type of hundreds that could be given, but the recitation would be wearisome.

We have no means of determining the *frequency* of deviation from a normal condition, as a result of maternal impressions. Many mothers have a superstitious dread of something being wrong, with the child perhaps having experienced no impressions. Others feel startling impressions, the child sustaining no injury. This proves nothing against the position we take, especially when weighed with positive evidence, as exhibited in the hundreds of practical illustrations recorded and well authenticated. It is more rational for us to dwell on the importance of enlightening humanity upon this subject, and guarding the coming generation from the effects of *untoward* maternal impressions upon the unborn. Who can compute the burden of sorrow, and evil, and deformity mental as well as physical thus originated, to be continued from generation to generation like a wave over the almost boundless ocean of time. How powerful for evil may I will say *must* be the results of poverty, intemperance, wretchedness, anxiety and anger, aside from sudden shocks and terrors. On the other hand how elevating and priceless the effects through the mother of happiness, joy, refinement and pleasant mental activity.

Were the laity forewarned, how closely would public opinion require the pregnant women to be guarded against evil influences and trying conditions, and seldom, except amongst the most besotted and ignorant, would such instances as occasionally occur be recorded.

It is claimed that this latter class are less liable to these

accidents than the more refined and cultivated, and with plausibility, as the enlightened intellect is more susceptible to impressions, and the cultivated sensibility more amenable to shock.

From a *speculative standpoint*, who can estimate the possibilities of enlightenment and improvement to the human race by an acceptance and utilization on scientific principles of the fact that maternal impressions do sometimes determine the mental as well as physical endowments of the foetus.

We may yet live to have the child in utero being prepared for usefulness as a poet, a statesman, a lawyer, an athlete, or possibly the maternal impressions might be so powerful as to evolve a worthy member of our most honorable profession, and a lasting boon be thereby conferred upon humanity.

MADISON CO. (ILL.) MEDICAL SOCIETY.

MEDICAL ETHICS. By A. M. POWELL, M. D., of Collinsville, Ill.

Perhaps no greater truism has been uttered than that "Jealousy is the bane of the medical profession." In city, town and village we find members of our profession watching with eagle eye the movements of their confreres, apparently anxious to detect the least breach of courtesy—the least false step—ready to seize upon a straw with which to light the fires of their indignation—ready, upon the slightest provocation, to deal damnation upon the devoted head of a recusant brother. This fact is so patent that even the laity have become fully aware of it, and use this state of things as a common fund of amusement for themselves—a sort of standing joke upon the profession—a sweet morsel of food for vulgar gossip.

Now, since doctors are supposed to be made up of the same elements that enter into the average human being; since there is supposed to be nothing peculiar in their minds and organizations necessarily leading them into the grosser foibles but too common to our race, since there can be nothing in the practice of the healing art that can conduce to individual or collective baseness, we are prone to ask the question why are the members of our profession so universally victims to the green-eyed mon-

ster? Why is it that in ours more than in all other callings its members are so perpetually at war one with the other? We are driven to seek a solution of the mystery by considering motives outside of those usually governing men in ordinary business and social relations.

In our opinion this solution will be found, partly at least, in the fact that our profession has set up for its guidance a code of ethics which, while it contains the features that should govern gentlemen in their professional intercourse with each other and with the world, also contains provisions at variance with practical, every day common sense and all usage in other professions; a code so unnatural, far-fetched and *stilted* as hardly to be understood by the many, and respected and appreciated by only the few in or out of the profession. By the provisions of this code we are so hedged about—confined to so narrow limits, in many things, that it would be expecting too much of human nature to suppose more than a few of the profession will be governed by it. Its subtleties and fine distinctions are such that the laity not comprehending are led only to despise it. The result is, we daily witness large numbers of the members of our noble calling violating the spirit if not the letter of the law; seeking rather to hold with the latter while evading the former in every essential particular.

It is the bent of the human mind to resist unnatural restraints, and therefore, when these are applied, it is but natural that no means should be left unused to evade unjust provisions. This tends to weaken the force of those which are just and thus lead to violation of all, breaking down all the barriers to absolute freedom of action. Hence we see numbers of our brothers who, while professing to hold to the letter of our ethical laws, are covertly violating their spirit, committing numberless wrongs and thus breeding that jealousy which we so much deplore, and which is daily dragging our profession down into the mire and filth of dissimulation and degradation, alike disgusting to our right thinking members and the laity who are ever on the alert to detect our shortcomings.

It would be amusing, if it were not so disgusting, to note the actions of the average doctor, when opportunity offers for him to make a disingenuous remark or throw out an insinuation by act or word against a neighboring practitioner. As a general thing he will be very careful to do nothing by which he actually

violates the letter of the code—it may be that his weapon is only a wise look, a shrug of the shoulders, a wink, or a nod ; but use some weapon he will, for he knows full well that the person against whom he so uses it will, if occasion offer, most likely repay him in kind. These deplorable and discreditable practices are by no means confined to the rural districts, but are freely adopted by the so-called “Lights of the profession” in our large cities, against one another, but particularly against the country physicians of their vicinity, the said “lights” apparently vieing with each other in their endeavors to break down the influence and standing of their country brethren. I venture to say that there is hardly a country physician residing within a radius of many miles of a large city who has not earlier or later been the victim of the foulest treatment by some one or more of these self-assumed “lights of the medical profession.” It is so common for these bigoted ignoramuses (for generally the truly learned do not practice it) to take every advantage of a brother, that it may be considered a rule, with few or no exceptions. Every lily-livered, little-souled, pig-headed fellow who, by some inscrutable decree of providence, or perhaps more properly speaking, by the unscrupulous practices of the medical schools, has been permitted to tack the once respectable title of M. D. to his name, and who, by “ways that are dark and tricks that are vain,” is eking out a precarious existence, possibly in some back street of some large city, while assuming to be an expert in all branches of the profession feels it incumbent upon himself to deride, decry and scoff at his superiors, particularly if they be of the country.

But these obscure curs are not alone in this ineffable meanness. Many of those who by liberality of education and contact with gentlemen should have learned better, are not one whit slower to use these vile means, though possibly tempting them with a little more *apparent* gentility, to poison the atmosphere surrounding their competitors. This is no exaggeration, no over-drawn picture, as the daily experience of many will attest. A man being very high in the profession, whose income from his practice reaches into tens of thousands of dollars annually, said to me recently that it is now next to impossible for a new man, whatever his attainments in the profession, if he be honest, to get a foothold in the city of St. Louis, for the whole troop of dishonest vultures of high and low degree will prey upon him

until he leaves in disgust or speedily becomes a proper subject for the poor house.

Allow me now to say, and I say it with the greatest and most sincere pleasure, that our beloved profession still holds within its ranks in town and country, many, very many of these noble souls who would scorn to sell their professional birthright for a mess of pottage so vile as an advantage either temporary or permanent over a worthy contemporary. Many who value professional honor far above a price and who would scorn to do any act that would degrade our honorable calling. Such men are proverbially modest in self-asserted claims of superiority, ever ready to award the merit of praise to those who rightly deserve it. Such men while fully realizing the disadvantages of isolation, justly credit the country practitioner with the immense labor required of him in mastering the broad field of a general practice, yielding him due honor for the talent which, unassisted by superior advantages, successfully covers a field, which in cities is divided into a dozen specialities. To these men jealousy is unknown.

If I have successfully shown that jealousy is the prime cause of the ills of which we have been speaking, and that their jealousy is the offspring of a pernicious medical Code, you would very naturally ask: is the remedy to be found in cutting adrift from written codes and allowing each to establish for himself a line of action consonant with his views of right? I will frankly answer, no! But I would revise the codes removing the objectionable features, bringing to bear the rules of common sense. This done, I would inculcate the practice of that unwritten Code, which instinctively governs gentlemen in their intercourse with their fellows and which is, perhaps, best formulated in the Golden Rule.

Let each of us strive, by emulating noble example, to ennoble ourselves, thus multiplying good example and thereby constraining men to respect us and emulate our good deeds.

Let each extend a helping hand to a weaker brother or one less fortunately situated than ourselves.

Let each one of us love our professional honor more and the almighty dollar, gained by illegitimate practices, less.

Let all of us cultivate a spirit of kindness, forbearance and helpfulness; of candor, frankness and generosity; of honor and integrity. Let us continually pray, from pride, vain-glory and

hypocrisy; from envy, hatred and malice; and from all uncharitableness good Lord deliver us!

In a word, let us be true, not to written Codes *merely*, but to professional honor, fraternal trusts and upright manhood. Let each man be true to his instincts of justice and right and practicing these he will not be apt to wrong a brother.

This above all, to thyself be true. And it must follow as the night the day. Thou canst not then be false to any man.

Thus, and thus only, can we elevate our calling above a mere trade. Thus, and thus only, can we hope to win the respect for our profession, which it endeavors to exact from the populace.

THE SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

ADDRESS. By C. W. DUNNING, M. D., of Cairo, Ill., Retiring President.

GENTLEMEN OF THE SOUTHERN ILLINOIS MEDICAL ASSOCIATION:

In discharging the duty which your kind favor has imposed upon me, it becomes my unfeigned pleasure to acknowledge the agreeable impressions made upon me by this the Sixth Annual Meeting of our Association.

I am glad to have been permitted to exchange greetings with you and to bear witness with you to the advances we have made in our beloved profession. I would not consider that duty properly discharged, if I were to occupy the closing moments of the session in a mere recapitulation of the dry details of statistics. Neither can I attempt a summing up of the technical work of the session. All this I leave to yourselves, feeling assured that you, like myself, gratefully acknowledge the debt we owe to the painstaking and effective manner in which each member upon whom has devolved a duty, has discharged the same.

I should, however, feel wanting in a due appreciation of the occasion, if I failed to attest the importance of these meetings. They can not be over-estimated. We make new acquaintances, renew old ones, create and cement friendships. We do much more than this and that too of the greatest importance to the non-professional world to whose service we have dedicated our

strength, our intellect and our lives ; for we create a higher, a nobler conception of the duties and responsibilities of professional life, in the hearts of our younger members, and we utilize for the benefit of all humanity, the results of experience, discovery and experiment of the best exponents of professional ability. There is thus at once added to the learning of the freshest graduate, who has just plumed himself with the pin feathers of text-book ignorance, the latest practical and experimental knowledge of the maturest veteran in the ranks of the healing art. In our professional relations to the society

“’Tis true, and pity ’tis ’tis true,”

we are most often misunderstood. Perhaps we owe much of this to ourselves. The dignity and sacredness of our calling and our own dignity as members of a presumably learned profession, should protect us from being misunderstood. We should protect ourselves and we should protect each other by every honorable means, from misconception of motive and misconstruction of act. The honorable physician can never bring himself down to the degradation of seeking either popularity or practice by any art. This belongs to the charlatan and he should enjoy the monopoly.

The utmost charity does not exact from the profession a tolerance of quackery. The well poised physician cannot for a moment lay aside his individuality, in which probably lies his most assured earnest of success. But his personality never for a moment sinks to the contemptible level of egoism. He will carefully guard the portals of the temple from any profanation by the varying forms of the hydra-headed genus humbug.

There must of course be left the largest margin for individualism and for temporary and ephemeral and sometimes abnormal conditions. Indeed, it is unsafe to hedge ourselves about too closely with dogmas. Those only whose dicta are inspired, or whose dealing is with sciences demonstrably exact, can afford to do this. But we must none the less remember that we have with us a genuine faith, a faith inherited through ages of knowledge, which is ours to sacredly cherish, protect and defend at all hazards, alike from the novelties of heresy and the machinations of conspirators who defraud the public. Innovation is not always reform and mere novelty, though always attractive to the superficial mind, is not discovery. Ours is an endless contest

with the superstitions of the ignorant, and a defensive war to protect ourselves and the public from the evil effects of fancy flights, of a certain class of unsteady and unbalanced intellect, whose learning consists in an abundance of theories, and whose most conclusive judgments are either purely imaginary or altogether inadequately verified.

On the importance and dignity of our profession it is unnecessary to dwell. If I attempt to portray the genuine happiness of those who devote themselves to the help and healing of mankind, it would be but reproducing frequent experiences of your own, and which are the most cheering man can hope for by his own exertion. What position can be conceived of with more of sacredness and sanctity in it than that of the medical adviser? What confidences are his? What utter dependence on not only his skill, but his integrity and his honor? The grim skeleton of every closet is a familiar apparition to him. No glamour of light, no tawdry tinsel of gilded dressing, conceals from him the eating canker sore, which gnaws the soul of those who, smile they ever so sweetly to all the world beside, are indescribable sufferers.

I glory in the knowledge that this absolute and perfect confidence has never been betrayed. Though never solicited, but invariably thrust upon him, there is no well authenticated instance where he sold it for profit or where even the pains and penalties of judicial process could wring it from him when its publication would redound to the injury of person, property or reputation of those relying upon him. What a guarantee for the safety of family harmonies does this fact give? It is most gratifying to professional pride and makes

"I: drink from a chalice
A king in his palace
Might barter his crown for
And barter it well."

The age is progressive. We are accustomed to hear this so often asserted that it would be strange if the world were not now well informed of the fact. It is true we hear also many unmeaning platitudes sententiously uttered as if they were important truths newly discovered. We are regaled *ad nauseam* with choice titbits, scraps and pinches of science to attest the progress of men and science in our own day. We are assured that physical and mental science have made giant strides

towards perfection and that all the arts have burst their bonds and are destined to fill all space with their expended forms. Nobody of men know this so well as we do. Indeed, if what we gave to science was subtracted from the mass, the balance would be somewhat easy to master.

Yet as a body we are accused of being too slow, too conservative; behind the age. In the presence of my compeers, I shall not need to assert the utter groundlessness of an assertion so devoid of every element of truth. To ourselves, always on the alert, keen for the truth in its last development, the charge is absurd, and we feel it could only be formulated and expressed by those too ignorant to know what we have accomplished, or whose motive in making it will not bear scrutiny.

I do not allude to the stereotyped annual charge, furnishing an account of wonderful cures, giving the signs of the zodiac and reliable conjectures of the weather. The vender is generally agent or manufacturer of a pill, compounded from a recipe delivered by the Holy Ghost, through the chief archangel, to the advertiser. Neither do I mean the voodoo and mediumistic peddlers of miracles, but to some whose pretensions are that they are ultra scientific.

Conservatism is *our* safety, and the safety of the public which seeks our services. Æsculapius and Hippocrates were ahead of their age. Galen was no dotard, and Scaliger, with all his faults and follies, pushed the world ahead one step. When Socrates was compelled to sacrifice, his choice of Æsculapius was a proof, from the most perfect wisdom of his age, that even then the true devotee acknowledges the divinity of relief for suffering. Science itself is indebted to us for most of that which is of value, and upon the achievement of which it most plumes itself. The monks of the middle ages, whose rosaries had lancet and pounce bag attached, were the preservers of what was old and valuable, and the fathers of what is new and valuable pertaining to scientific truth.

Whilst our art, from its very nature, has not attained that degree of perfection that assumes inspiration, nor arrogated to itself so great a degree of development as to crystallize its truths into dogmas, yet it has kept abreast of the best literary and scientific culture of every age. We must remain conservative. We can not afford to veer about with every wind of doctrine, nor to be moved by the curiosities of science. To act

otherwise would be to admit that nothing is gained but by new discovery, and to discard and despise every use of our knowledge in its acquisition. Science like this, and which makes such demands, is both insolent and silly, as claiming for itself a separate function of the human mind. The mind in its most perfect form must largely rely on truths attained, verified and relied on for ages, and which offer a firm foundation from which to ascend to greater heights.

We must patiently cultivate our personal powers, but we must take for granted only what has borne the test of time and trial. Let the would-be scientists wrangle as they will over matter, force, form and evolution, we cannot forget that we deal with living entities, images of the living God. We may adopt whatever physical theory we choose, but no physician can for a moment forget, that there is in every patient something above and beyond what his scalpel and probe ever touched, but whose potentiality is the most important factor in the grand compound called *man*. The true physician is as much alive to the æsthetic in human nature, as to the definitions of the text-books. It is convenient to shroud these unknown quantities in general names, and we are forced both for the sake of our patients and ourselves, to use ambiguous terms frequently, to diagnose an ailment, whose chief element is *not* disorder of the body. No one knows so well as the physician the utter impossibility of transcribing to accurate definition, and strange powers, frequently exercised by the mind over the body, especially in such diseases as are said in the significant but inaccurate language of the books, to "lower the tone of the nervous system." Thus it becomes at once apparent that our profession should possess the most accurate habits of observation, and should be prepared by the most careful study, and rigid discipline of mind, to discharge the duties incumbent upon it. Since the possession of a degree is an "open sesame" to the most elevated society in every country, there should be the most careful scrutiny of all aspirants. The morals should be above suspicion, but besides this, a very full and complete literary course, including a fair knowledge of physiology, philosophy and chemistry, should be required of every one who matriculates. The number of medical schools should be decreased and their strength thereby enhanced. The student should be compelled to pursue the regular course for full two years before obtaining a license, and should then walk the hos-

pitals at least another year before asking for a degree. The man with a true incentive will be well able to attain all this, and the enforcement of such a preparation would no doubt lessen the annual crop of graduates, but the loss in avoiddupois would be fully made up in another direction. Minus quantity plus quality.

It is creditable to the medical profession that it is, even *what* it is, in this country. The temptations held out to mediocrity and incapacity by our innumerable schools, and the ruinous competition of cheapness, which makes the serious business of study and preparation a mere farce, tend to belittle and degrade the whole profession. That it has not *quite* succeeded, is an evidence that what motives soever by which men are actuated in coming to us, the dignity and responsibility of his position at once elevate him, and force him to a pedestal of merit, creditable to common honesty, but particularly to the *esprit de corps* of his fellow practitioners.

The requirements of the profession are constantly being increased. The advancement all along the line of the sciences, must find us prepared to avail ourselves of the latest developments. Though we may not in this age be startled by a discovery so grave in its consequences as that of Harvey, yet the revelations of the microscope, and the discoveries in chemistry, leave us no option, but to go on and prepare ourselves for new discoveries yet to be made, and which it is to be hoped may soon be made, for the alleviation of suffering every where. That there is room for our science yet to develope, we must sorrowfully acknowledge. That we have in our ranks as daring spirits as ever risked themselves for the world's good, needs no further proof than the history of every epidemic that ever brought terror and death to our midst. *If martyrs are saints*, we can pre-eminently claim that sanctity; the sanctity of humanity is characteristic of our profession. To meet the rising exigencies there are required, a cultivated judgment, self-possession, courage, energy, self-reliance, a love of truth, a clear head, and a steady hand. Tenderness, sympathy, delicacy and artistic feeling are adjuncts never out of place in the physician. Above even these, he requires a pure conscience, and so exquisite a sense of honor, that even when a chosen apostle shall fall, the doctor shall be stainless and true to his trust.

It is he who is the witness when a new life is ushered into

existence. Through the years that intervene he is the trusted adviser in every difficulty; and finally, dumb and helpless, his skill exhausted, *he* is the privileged counselor and sympathetic friend, whose tender regard consoles the bereaved for the loss no skill could prevent. Everywhere he is at home, trusted, confided in, and implicitly obeyed, as a monarch. He is a real monarch, whose sway is acknowledged as supreme, alike in the mansion of the affluent as in the cottage of the poor, and no more limited than the boundless sea of charity.

Gentlemen, it only remains for me to thank you for the honor I have enjoyed, and to beg that you will permit me to join you in the tribute we lay at the feet of our new President. Let us coöperate with him and with each other in this work, the highest work of humanity, until our own labor shall have been accomplished, and we can lay down the burdens of life with the feeling that we have been true to our trust, and that the world has been benefitted from our labors.

I hope you will carry away with you pleasant recollections of our Delta City, and that whatever the vicissitudes of the future, there shall always be a green and cherished spot in your memory, which marks the "sixth annual session of our Association." But the most agreeable incidents of life, as well as those less so, must have an ending, and however loath I am yet I am constrained to say *vale*.

Translations.

FROM THE FRENCH.

NEW MODES OF SURGICAL TREATMENT. ("Histoire de la Chirurgie Française" par le Docteur JULES ROCHARD. Edit. 1875. pp. 639, *et seq.* Translated for the JOURNAL by B. A. WATSON, M. D., Surgeon to Jersey City Charity, and St. Francis' Hospitals, Jersey City, New Jersey.

RARE SURGICAL DRESSINGS.

The principle on which rests the occlusion method in the dressing of wounds is not a recent discovery.

César Magatus, at the commencement of the seventeenth century, praised the infrequent dressings which accomplished in part the conditions of occlusion. "The natural tendency of wounds" said he "is to heal." That which is necessary to avoid with great care, is the contact with the air, because it irritates the wound; movements of the parts, because they derange the work of agglutination; the washing away of the pus, because it does not constitute a bad envelope, as has been frequently said, but a useful topical remedy prepared by nature for the operation."¹ The same reflections, without doubt, had presented themselves to the mind of D. J. Larrey, when he recommended leaving in place the fracture apparatus, even where wounds or other extensive complications existed, until the seventh, eighth or ninth day.²

The authority of the name of Larrey and the accuracy of his observations induced some surgeons of the day to follow his example.

Maréchal³ and Josse⁴ of Amiens especially adopted the prin-

¹ Magatus César, *De rara vulnerum medicatione, un de vulneribus raro tractandis. Venetiis*, 1616. Nous n'avons pas pu consulter cet ouvrage, nous le citons d'après L. Gosselin, (*Des pansements rares*, thèse pour la chaire de clinique chirurgicale soutenue à la faculté de Paris, 1851; Paris. 1851), et d'après la thèse déjà citée de B. Anger.

² D. Larrey, *Chirurgie Chirurgicale*, t. iii, p. 566.

³ Les observations de Marechal sont consignées dans un mémoire de L. Suzle inséré dans les *Archives générales*, 1833, 2^d série, t. II, p. 152, 305.

⁴ Josse, *Mélanges de Chirurgie pratique*, 1835.

ciple of immediate closure and infrequent dressings after amputations; they only removed the dressings on the tenth day, but their manner of procedure did accomplish the conditions of a complete occlusion.

They had preserved the old errors and the charpie, compresses and bandages permitted too easily the passage of the air by which the pus was altered. It was therefore necessary to resort to more efficacious means and to cover the wounds with a truly impermeable dressing.

OCCLUSION BY AGGLUTATIVE PLASTERS.

The cuirasses of diachylon applied over large ulcers represent the first effort made in this direction. This method of treatment has been invented several times and it would be difficult to assign it a date.

In England it bears the name of Baynton's treatment; in France it has especially been recognized by Dr. Ph. Boyer;⁵ it has been in use from time immemorial in the marine hospitals. The surgeons who surely invented this means, had not considered the injurious action of the air, but they had empirically established the fact that the ulcer took on a healthier aspect and cicatrized more promptly under this protecting cover and by the gentle compression which it exercises. The sheets of lead mentioned by Révéille-Parise and which have become common treatment in the management of ulcers of the legs, do not act otherwise. We may say the same with respect to the modes of dressing proposed in 1844 to the Academy of Sciences by Langier, Chassaignac and J. Guerin, and we would not delay longer on the subject, did they not form a point of departure for a series of researches of which we shall have to explain the results. In the month of October, 1844, Langier addressed to the Academy of Sciences, a note on the *happy employment of the mucilage of acacia and the gold beater's skin in the treatment of suppurating wounds*.⁶ This means had already succeeded with him a certain number of times following operations of some importance and among others after the removal of a breast, and he proposed to

⁵ Philippe Boyer, agrégé de la faculté de Paris, *Rapport au conseil général des hôpitaux et hospices civils de Paris, sur un mode de traitement des ulcères des jambes, Sans assujettir, les malades ni au repos, ni au régime*, Paris, in, 8, 1841, 16 pages.

⁶ *Comptes rendus de l'Académie des sciences*, 1844, t, xix, p, 914.

have recourse to it, in a few days, for an amputation of the thigh. He hoped thus to protect the wounds which resulted from bloody operations from contact with the air and to place them in conditions closely resembling those which are obtained with the subcutaneous method. This communication called forth two objections which were introduced at the meeting, November 11th, 1844. Jules Guérin, who already considered as his property everything connected, directly or indirectly, with the method in question, claimed the priority by recalling the trials made two years before for the same object with the aid of the gold-beater's skin in the temporary service of Maisonneuve at the Hotel Dieu.⁷ Chassaignac on his part, announced to the Academy, that during three years he had put in practice at Cochin, at Necker and at "la Charite" a mode of *dressing by occlusion* consisting in the application, over the dressed parts of a cuirass of diachylon made of imbricating bands.⁸ He recognized, however, that this was only a modification of Baynton's plan and that Velpeau had given utterance to the idea before him of applying it to the treatment of contused wounds.

We will not insist on the polemics which the question of priority raised. Langier did not follow up the idea, but it was otherwise with Chassaignac and J. Guérin; Chassaignac continued to use his cuirasses;⁹ he extended even the benefits of the treatment to abscesses in general and abscesses of the breast in particular.

Starting on this principle that the walls of a warm or cold abscess which has been opened, may be compared to the surfaces of a recent wound, he conceived the idea of obtaining immediate union by opening them by a very small puncture emptying very carefully the cavity by means of emollient injections aided by gentle pressure, and finally by use of the adhesion plaster in the occlusion treatment.¹⁰ The occlusion treatment had succeeded so well in his hands, that five years afterwards, in 1855, he

⁷ *Gazette medical de Paris*, 1844, 2d serie, t. xli, p. 730.

⁸ Voyez le comptes rendus legons dans la *Gazette des hôpitaux* de, 1849, et le travail d'Etienne Trastour dans les *Archives generales de médecine*, 1862.

⁹ *Comptes rendus de l'Academie des Sciences*, t. xix, p. 1006.

¹⁰ Voyez la Communication qu'il fit à ce sujet à la Societe de Chirurgie en 1850 et la discussion qui s'ensulvit. (*Bulletin de la Societe*, t. 1er, p. 679, 688, 697.)

boasted of his success before the society of surgery and claimed never to have observed, thanks to its employment, a single case of erysipelas phlegmon, or hospital gangrene even in the most unhealthy hospitals.¹¹

It is not without some astonishment that we hear similar assertions made in regard to every new treatment which makes its appearance. If these statements are true, then we are forced to conclude that secondary accident in cases of wounds, ought to be very little known in the hospitals of Paris, since all the surgeons who practice there, flatter themselves to avoid them with certainty by the methods which they have adopted; but we know only too well what to believe on this and as far as the diachylon cuirasses are concerned, Broce called to mind the fact that he had seen die of erysipelas, at Lariboisière in the very service of the origination of the treatment, a woman who had been treated in this manner, after the removal of the breast.

Chassaignac, also, was not slow to modify his treatment by introducing a new element. We of course refer to surgical drainage which soon overshadowed all the rest.¹²

¹¹ Seance du 24 Novembre 1855. (*Bulletin de la Societe*, t. vi, p. 276.)

¹² E. Chassaignac, *Memoire sur le traitement chirurgical des abcès du sein*. (*Gazette medicale*, 1855, p. 40, 57.)

FROM THE FRENCH.

A. H. OHMANN-DUMESNIL, M. D., of St. Louis, Translator.

INDIA RUBBER LIGATURE FOR UMBILICAL CORD.—Dr. S. Budin states that secondary hemorrhages of the umbilical cord are rare, and, in certain cases, where it contains a large amount of Wharton's gelatine. Although ligation may have been well performed, crying and other efforts often induce serious if not fatal hemorrhage. The use of india rubber has this advantage, that the pressure is continuous and strong and it does not cut the cord. There is some difficulty in applying it, which may be obviated by taking a match, or other small piece of wood, and including it in the ligature. It prevents slipping and when the tying is done the match is then broken and the pieces are slipped

from under the ligature. Dr. Dickson, in 1874, spoke of ligating the cord with an electric band, to the Obstetrical Society of Edinburgh, but his ligature consisted of silk and rubber. The author makes the following conclusions: 1. In cases where the cord is large, ligation with flax thread even, if it is tightly applied, may be insufficient to prevent secondary hemorrhage. 2. In such cases the elastic ligature should be applied. 3. The preferable one to use is that having 2 mm. in diameter. It is easily applied when used with a match, as mentioned above, four or five turns around the cord being sufficient. 4. It exercises a continuous pressure on the vessels of the cord, rendering them impermeable thus preventing secondary hemorrhage, and on the other hand, not cutting the cord.—(*Progres Medical*, Jan. 17th, 1880.)

CRYSTALLIZED HÆMOGLOBIN.—M. Picard, at a meeting of the Society of Medical Science of Lyons, gave a method of preparing crystals of hæmoglobin that can be preserved for an indefinite length of time. It simply consists in spreading the freshly prepared crystals on a glass slide, drying rapidly by passing backwards and forwards over an alcohol lamp; and, as soon as dry, curving it with another piece of glass. He exhibited preparations made in 1876, which are still perfect.—(*Lyon Medical*, Jan. 18, 1880.)

DEFORMITY OF THE SKULL PECULIAR TO A TRADE.—Dr. A. Poncet gives a short account of men who saw beams, standing below them and moving them forward with their heads whenever it is necessary, as it frequently is. The weight that has thus to be displaced is from 150–400 kilogrammes and a days work averages 12 hours. All of these workmen commence their trade at the age of seventeen to twenty. No protection is placed on the head, the hair alone affording one. By this means there is developed a periostosis situated in the median line, on the sagittal suture, its greatest thickness being at the vertex. This callus has a length of from five to seven cm. and a mean breadth of 3.5 cm., the edges gradually and insensibly diminishing. This tumor is never painful, and generally smooth, although occasionally mamillated. There is generally a bald spot over the tumor of the size of a silver five-franc piece, the skin being somewhat thickened.—(*Ibid*, Jan. 20, 1880.)

PATHOLOGICAL ALBUMINS.—At a recent meeting of the Biological

Society of Paris, M. Manuel made the following his conclusions on the subject: 1. Pathological albumins most generally differ from normal ones. 2. Among these (the pathological) some change the potasso-cupric solution violet and others do not change the color at all, or give it a very slight greenish tinge. 3. Febrile albumins, i. e., those passed in the urine during a febrile stage, have the latter reaction. 4. Albumins of typhoid fever, besides their action of not affecting the potasso-cupric solution, also present, in a certain measure the reduction of the copper by glucose. 5. In this regard these albumins approach more nearly the peptones in general. 6. Their coagulability by heat and nitric acid permits of their being regarded as the result of the incomplete digestion of fibrin (caseiform albumin.) 7. This albuminoid substance has appeared in patients fed on *bonillon* alone, which would seem to point to an intra-circulatory digestion of the fibrin of the blood.—(*Gazette des Hopitaux*, Jan. 20, 1880.)

FROM THE ITALIAN.

A. H. OHMANN-DUMESNIL, M. D., of St. Louis, Translator.

TORPID SCROFULOSIS AND INCIPIENT CHRONIC PULMONITIS.—
Dr. Prospero Merlini gives an account of a case as follows:

Catherine Garibaldi, æt 29, stated that her father had suffered from glandular enlargements of the neck; her mother was always healthy; her sisters and brothers were more or less phthisical. She menstruated at twelve, and was never sick in infancy or childhood. Married at twenty and had a miscarriage at the sixth month, with abundant hemorrhage. Since then she had small tumors which had suppurated for about two years, and her menstruation was irregular. She presented the following symptoms (this was in 1873): She was tall, well developed, muscles voluminous and very flaccid; skin transparent and fine; short neck, ample thorax, large, flattened and dilated nose. The lymphatic glands of the neck enlarged and in the right axilla a fistulous opening leading to a gland undergoing caseous degeneration. On the right side at the angle of the jaw a glandular tumor, of the size of a hen's egg existed, being painful and hard.

The patient had a sense of *malaise* and debility, no appetite, impaired digestion, vomiting at irregular intervals and especially after eating certain articles; menstruation scanty and irregular. On examination the thoracic viscera seemed sound. The abdomen was enlarged, and tender about the umbilicus. The diagnosis was torpid scrofulosis and the treatment consisted in the administration of iodide of iron in pill form, together with iodine ointment to rub on the glandular tumors. The pills were not tolerated and a solution of potassium iodide with tartrate of iron and potassium substituted. Recovery was rapid, and followed in a short time, the functions being all restored to nearly normal.

In May, 1876, symptoms of dyspepsia came on anew and ceased under the influence of mineral waters.

In Nov., 1878, symptoms manifested themselves, showing that the diathesis was not eradicated. Besides those enumerated above she had a frequent and dry cough and a glandular tumor at the angle of the jaw on the left side. She had rigors followed by fever rising as high as 41° C. (105.8° F.) and this followed by copious sweating, the pulse rapidly rising to 140. She rapidly emaciated, easily succumbing to the influence of consumption. Remembering the good effects previously obtained from the use of the iodide of iron and of mineral waters, they were again ordered, but unavailingly. The fever was stopped for a few days by quinine, but it had to be discontinued and salicylate of soda substituted in doses of three grains every twenty-four hours. She improved but little till in February, 1879, when seeing that a new remedy, *tayuya*, was announced as a specific in scrofula and syphilis, it was used as a last resort in three drop doses three times a day, in a spoonful of water. On the third day of its use there was marked amelioration. The symptoms yielded and the medicine was gradually increased to two grains per day. In April, 1879, the woman was able to go about and kept taking the medicine during May and June. For the next three months she discontinued its use but recommenced taking it and has been well ever since.—(*Archivo Clinico Italiani*, Jan. 20.)

[NOTE.—It may be interesting to observe here that Pellizzari of Florence has made extended observations which lead him to conclude that *tayuya* is almost if not wholly worthless as an anti-scrofulous or anti-syphilitic remedy.—TRANS.]

ST. LOUIS MEDICAL SOCIETY.

SATURDAY, APRIL 3d.

DR. LEGRAND ATWOOD, as Chairman of the committee appointed to draft resolutions regarding the death of Dr. J. J. McDowell, read the following, which were adopted:

In Memoriam—John J. McDowell, M. D.

John James McDowell, M. D., was born in the immediate vicinity of Lexington, Ky., on the 16th of February, 1834, and died at Hot Springs, Arkansas, on the 27th of March, 1880, at 1:20 A. M., in the 47th year of his age.

When six years of age he was brought by his parents to St. Louis, arriving here on the 10th day of March, 1840, where, in the schools of the city, and for about one year at Shurtleff College, Ill., he obtained his earlier literary training. While very young he commenced the study of his profession, and residing within the college walls of the Medical Department of the State University, or adjacent thereto in the family residence, was continually associated with leading medical men, and surrounded with anatomical, chemical, pathological and surgical specimens and paraphernalia, so that it may be said with truth that he breathed the atmosphere of medical science during the period of student life. Endowed with fine mental capacity and with favorable surroundings, he earnestly applied himself to the acquisition of professional lore, and graduated with honor at the Missouri Medical College, in the spring of 1855. In the same year he was appointed to the Demonstratorship of Anatomy in his Alma Mater, and continued in this position till 1862, when lectures in that institution were temporarily suspended. He was in 1864 appointed Demonstrator in the St. Louis Medical College, and elected to that position in 1867, discharging with singular ability the arduous duties of this important office. He was in 1873 unanimously chosen Professor of Anatomy, and till after the commencement of the regular course of lectures for 1879-80 continued as such, adding to the already widespread reputation of the institution as a center of learning, and to his own as an anatomist and lecturer.

His lineage was of a lofty order, remarkable for intellectual and professional distinction. He inherited the abilities and tastes of two illustrious families, members of which have written their names indelibly upon the scroll of fame. His father, Joseph Nash McDowell, was the great surgeon of the Mississippi Valley, and founded the first medical school west of the river of that name, whose distinction as teacher and operator has not been excelled, and whose memory remains green and

fresh in the hearts of thousands of his students and collaborators.

His mother, Amanda Virginia McDowell, was a sister of the great Dr. Daniel Drake, of Ohio, and possessed an unusually clear intellect, highly cultivated, conjoined with remarkable firmness of purpose and decision of character. Her moral nature was commensurately admirable; devoted to her husband and children, it was her chief pleasure to seek their happiness, welfare and advancement.

His uncle, Daniel Drake, attained to just celebrity as physician, professor and author, and will be remembered so long as the annals of the West are written or read. Son and nephew respectively of these brilliant professional lights, it remains to be said that he was the great nephew of Ephraim McDowell, who in an obscure country village, remote from civilized centers, where opportunities for professional conference and pathological investigation were exceedingly limited, devised and performed ovariectomy, and with this remarkable contribution to surgery, leaped to the pinnacle of professional greatness, while he thus initiated a procedure ranking among the greatest benefactions to his race.

Hereditary transmission of admirable qualities was the birth-right of our deceased brother, and as freedom of thought evolved the idea of safety in ovariectomy, and courageous conduct demonstrated its successful performance, so independence was the distinguishing trait of John McDowell. From boyhood to the day of his sad death, no consideration of expediency, no politic provision, no pressure nor persuasion biased his speech or conduct. Individuality marked his character, and as he was a gentleman, the expression of his leading trait conveyed no sting, wounded no tender sensibilities, but conveyed the impression of combined gentleness and firmness founded in high-toned principle. Of affectionate and kindly disposition, he endeared himself to relatives and friends, and while a congenial companion in happy hours, he was most sympathetic in the day of distress. No one was more charitable in expression and deed. Beloved by his colleagues, the profession at large, the students, and almost idolized by his patients and intimate friends, his death in the prime of life, in the noonday of his usefulness and ambition, has awakened a general sorrow. No more will his brother professors listen to his counsel and advice in the management of a great institution, nor receive his assistance in elevating the standard of medical education. Never again will his professional brethren obtain his wise admonitions and suggestions; the celerity and precision of speech which marked his instructive lectures, will not again fill the ears of delighted students in the amphitheater. His patients "mourn because he is not," while hosts of friends "in camp and court" sorrow over the irreparable loss of one so true and admirable. He was honored during

life; being dead we cherish his memory, and tender his brother, Dr. Drake McDowell, of Hot Springs, Arkansas, sole survivor of the family, our sincere sympathy and profound condolence in his great bereavement.

JOHN S. MOORE, M. D.,
J. S. B. ALLEYNE, M. D.,
LEGRAND ATWOOD, M. D.,
Committee.

DR. STEVENS, SR., referring to the death of Dr. McDowell, said: I have ever regarded Dr. McDowell as a man possessing peculiar qualities, not that he was eccentric, but even as a child, as a boy, he attracted the attention of a large number of the friends of the family as being different from most of his age. He was one of those boys you take an interest in and at once, and so he has continued through life. He surrounded himself by a circle of friends who were warmly attached to him. I attended Dr. McDowell's funeral, as did a large number who are here; they will remember the remarks of Dr. Snyder, whose text you may say, was, "he had faithfulness." Faithfulness was the prominent characteristic of Dr. McDowell in the profession and out of it amongst his friends and everywhere. This word implies a great deal. I do not know that I can say anything more.

DR. HODGEN—I did not call on Dr. Stevens because I thought he could add anything to the eulogy which can be written of Dr. McDowell, but because he had known Dr. McDowell from childhood. I wish to awaken the recollection of the Society to one prominent trait of his character, or rather to one act of his life to which their attention has never been called, because he has never uttered a word in reference to it. To my personal knowledge, Dr. McDowell has during the last twenty years expended the earnings of his laborious profession in taking care of his relatives who were not in a position to take care of themselves—and of others who were dear to him. It has been the business of his life to be engaged in acts of charity of which he never breathed a word. Twenty-five thousand, possibly fifty thousand dollars of his fortune must have been expended in this way. All of his income was expended in this way—in taking care of his brothers and sisters, and he has been the support to a certain extent of a very deserving family, not his own, but one to whom he was under an obligation. Dr. McDowell was in every respect

an honest man, honest in his dealings with the profession and with the public, and honest to his patients.

DR. MAUGHS—I knew Dr. McDowell as a boy. The name of McDowell has a very dear niche in my affections, as those who know me are well aware. After saving up money to take a trip to Europe which his health needed, he gave it to his needy kindred. I looked upon it as an act of the noblest charity. As has been stated, he was as remarkable for his honesty and faithfulness as for his charity. I look upon his death as a great loss to the profession and to the public.

DR. PAPIN—Although my acquaintance with Dr. McDowell was hardly more than that of a speaking one, I knew him to be a most honorable man, the worthy son of a worthy father. I learned something of these charitable deeds of Dr. McDowell, but did not know the extent to which it was carried. I knew he was very warm-hearted and generous to his family and his friends. His abilities, in many respects, eminently fitted him for the position which he occupied, a position which his true merit justly obtained for him.

DR. LUTZ moved that a memorial page be set aside in the records of the society, and that a copy of the resolutions be sent to Dr. McDowell's brother. Carried.

Oedema in the Pregnant.

DR. MAUGHS—This fall I was called to see a lady who had been about seven months pregnant. She had great oedema. Her eyes and face were swollen very much; the labia were swollen and oedematous to an extreme degree, the patient had also ascites, great distension, hydræmia, dimness of vision, flashes before the eyes, headache and all the symptoms of threatening puerperal convulsions. I carefully tested the urine and found no albumen; there were all the symptoms of acute albuminuria. I placed the patient upon saline cathartics, which diminished the swelling without curing it. There was scarcely any diminution of the head symptoms. At one time after giving the saline cathartics, I determined to bleed her, but she objected. I was apprehensive every moment of being called to find this patient with eclampsia. Except that the patient lived in the country, making it inconvenient, I would have induced premature labor. But she was eventually confined without an accident. She very slowly recovered her natural condition. I

state the case because it was a little peculiar from the intensity of the symptoms threatening an attack of eclampsia, and yet the patient got well.

DR. PAPIN—My impression is that from the fact that the woman lived in the country, she had probably suffered from malarial fever of an obscure character. I had a few similar cases in a malarial country; patients extremely œdematous from the eyelids to the feet. There was a large effusion of water down into the cavity; the patient had heavy chills. I noticed febrile conditions every second or third night, but could discover no albumen in her urine. I treated her with saline purgatives and, like Dr. Maughs, was able to carry my patient through without difficulty. Several weeks afterward I found my patient in an old-fashioned chill, for which I treated her with quinine, and finally succeeded in curing her. In districts like these, accoucheurs are too apt to look on the worst side of the case. If the doctor had examined his patient he would have found the spleen very much enlarged.

DR. MAUGHS—The woman did have malarial fever. She had enlarged spleen and I gave her quinine very frequently. It is remarkable that Dr. Papin, knowing nothing of the case, should have stated so accurately all the conditions which actually existed.

DR. JOHNSTON—I had a case in a woman, primipara, at the sixth or seventh month. The œdema was very great. I gave her saline purgatives, and she recovered without any unnatural irritation. After her delivery the dropsical symptoms immediately disappeared. Every pregnant woman is more or less albuminuric. I had nineteen or twenty cases of convulsions, and not one had swelling. What is your experience about dropsy and puerperal convulsions, Dr. Papin?

DR. PAPIN—Sometimes, in cases of œdematous vulva and eyelids, I would examine the urine to find albumen. My treatment has been iron and saline purgatives. In addition to this, I sometimes use bromide of potassium or chloroform to relieve the headache, and give sleep. I have followed the Spanish proverb, "A little breakfast is too much," etc.

DR. MCPHETERS—During the last year, I was called to see a young woman in confinement with her second child in about

the second month. She became exceedingly cedematous in the lower extremities, and she was attacked with post-partum convulsions. On examining the urine, it was found to be loaded to an enormous degree. In this case, the convulsion was, of course, produced by pressure on the kidney. I advised both venesection and premature delivery. I succeeded in this way, hoping to save the life of the mother. Dr. Boisliniere was also in consultation. The woman died next day.

SATURDAY, April 10th, 1880.

The Administration of Chloral with Alkalies.

DR. NEWMAN—It has been long a prevalent belief, I believe, that chloral should not be given in conjunction with alkalies, because by so doing it is converted into chloroform in the system, and for that reason a good many physicians at one time were disposed never to give it in combination with any alkaline product. But for the last ten or twelve years, perhaps not so long, we have been very much in the habit of giving it with some alkalies, especially with bromide of potassium. Some three or four years ago, in administering chloral, I discovered that some of the alkalies speedily converted it into chloroform. I remember giving it in a prescription for a child laboring under convulsions. Its bowels being constipated, I had a little syrup of rhubarb and for the acidity of the stomach a little magnesia in the prescription. It was taken very well, but when the dose was repeated in the evening the child was almost suffocated. I examined the bottle and found a strong odor of chloroform. I thought that a mistake had been made by the druggist and showed him the bottle. On examining it he admitted that it contained chloroform, but insisted that the prescription had been properly compounded. In the course of eight or ten hours another bottle of the same prescription became converted into chloroform.

DR. PREWITT—I think I have seen it stated somewhere that bromide of potassium and chloral were not to be administered together, but I have frequently administered them myself, and the well known remedy "bromidia" is a mixture of bromide of potassium, chloral and other things; and in it there is no de-

composition. I have very frequently administered them in prescriptions with good effect.

DR. JOHNSTON—Since these medicines were first introduced, they have been pretty generally prescribed together by the profession and very often morphine with them. Writers tell us that the effect of these remedies is to constrict the arterioles of the brain and physiologists have determined the fact that sleep consists in the presence of less blood in the brain. I have never seen any objections to their being prescribed together and I cannot see why there should be any objections.

DR. HURT—I think the physiological action of these narcotics is not so easily determined as my friend Dr. Johnston seems to think. If his theory, that they constrict the arterioles and lessen the quantity of blood in the brain be true, then they should be administered in hydræmia of this organ. Experience does not sustain the theory.

DR. NEWMAN.—It occurs to me that our experience in the use of chloral is rather calculated to sustain the position taken by Dr. Johnston. We are very much in the habit of giving chloral and it is a most excellent remedy, but it is certainly very improper to give it under certain circumstances, for instance in cases of great depression, great feebleness of the arterial system, especially in those exhausting cases of delirium tremens. I have seen some serious results from the administration of this drug in depressed conditions of the system.

Disfigurement from Gunpowder.

DR. FAIRBROTHER—An engineer on the O. & M. Railroad, about a year ago, had his gun to explode whilst in the act of firing and his face was completely filled with partly charred grains of gunpowder. A number of these grains lodged in the corneal and sclerotic conjunctiva. These I called upon Dr. Pollack to extract. Over the rest of the surface of the face, these grains were thickly studded, probably fifty to the square inch.

You are aware of the usual means adopted to get gunpowder out of the face, cutting it with the knife, scooping it with the scoop, washing it with warm water, poulticing the face, etc. I tried all, and all failed. It occurred to me then that vesication of the face might be of use. I therefore produced it on a spot on

the face and to my great delight on the first morning after the production of this large blister, I found floating in the serum a great many specks of the gunpowder. I applied a poultice of bread and water and allowed it to remain eight or ten hours. I then freely incised the epidermis. Encouraged with the result of this blister on one spot, I tried it on other parts, making free vesication and subsequently removing the epidermis. The man has now scarcely a trace of the marks of the powder, the only traces being present in the depression near the nose where vesication was but slightly performed.

DR. RUMBOLD—On the 5th of July last I had an experience of a like nature. A little girl had a small fire cracker explode on the edge of her thumb near the index finger and was brought to me. The hand was somewhat swollen at that time. The girl was determined to have the disfigurement removed if possible. I thought the only way would be to pick out the grains with a needle, but on thinking the matter over, I determined to try the "spray." I adjusted my apparatus with about forty pounds to the square inch and cleaned the grains out almost perfectly, except the very smallest ones, which looked like the beard on a man's face after being shaved three or four hours. The spray with the usual force was not adequate. It had also to be thrown from a very fine spray, and with great force. My theory of its success is that the liquid and air are thrown with sufficient force to enter each opening, dissolve the gunpowder and carry it out in solution. I used common glycerine and warm water. It must be remembered this was used just after the injury had been received; in cases where the wound is closed, of course the spray could not again open it.

Unusual Slowness of the Heart's Action.

DR. MUDD—Last Sunday I was called to see an old lady 78 years old whom I had seen from time to time during the last four or five years. She was suddenly troubled with disturbance of the heart's action, and complained of pain in the chest and coldness of the extremities. At the time I saw her the disturbance had passed off and left no special evidence of trouble. I found no evidence of valvular lesion or of organic trouble; the heart's pulsation was normal in force and frequency. Her habits were regular, and she was active as a woman of 50 years. On last Sunday, when I was called to see her,

I found her with the extremities cold, skin slightly moist, respiration about 20; pulsation of the heart, 18 to the minute. Her intellect was perfectly clear. I saw her at 4:30 and ordered some stimulants. I saw her again at 8 o'clock that evening, and found the pulse 32 to the minute and the respiration about 22. Next day the pulse was down to 15. About this time, by listening to the heart's action, I could hear a secondary beat, which was not uniform. The pulse during the week did not rise above 15; it sank until it was about 13 to the minute and fairly strong. The woman retained her mental faculties perfectly until Friday. On Wednesday she had a number of convulsive attacks; convulsions of the face and arms, not marked, but frequent. These were always preceded by rapid respiration. During Monday, Tuesday, Wednesday, and Wednesday night until two o'clock Thursday morning, the condition of the secretion from the kidney was about normal. On Thursday at two o'clock in the morning she passed her urine freely, but not again after that and on Thursday afternoon I drew from the bladder about one ounce of urine. On Friday morning about half an ounce. The patient died this morning about six o'clock, having made no urine other than that since Friday morning. The question occurred to me that there might possibly be a saccharine condition of the urine, and on close questioning of the lady who has been the patient's companion for the last three months, I learned that about a quart of urine had been voided every twenty-four hours, that it had almost uniformly been of a thick brownish color, leaving some stain in the chamber. Upon examining the urine drawn from the bladder I found its specific gravity 1018; no albumen, but a distinct trace of sugar. Upon post-mortem examination we found in the abdominal wall a thick coating of fat and the subperitoneal layer of fat well marked, and the omentum and mesentery thickly studded with fat. On opening the thoracic cavity we found a number of folds of fat around the base of the pericardium and on the diaphragm; at the point of junction with the diaphragm the layer of fat over the heart was well marked. The left auricle was so distended with blood and its wall was so thin that the bluish color of the blood was distinctly to be seen. A fibrous clot which was of a yellowish color and looked like liquid fat, was found inside in the right ventricle, and projecting in the pulmonary artery

on oneside on the other into the auricle. The right ventricle of the heart was thin and yellowish and seemed fatty. The coronary arteries, especially the left, presented well marked calcareous degeneration; at one point in the coronary artery just at the ventricular branch, there was a distinct narrowing of its caliber. In the right coronary artery there was also degeneration, and the pulmonary artery and the aorta both had this yellowish color. Upon examining the parts beneath the heart, I found a number of bronchial glands enlarged, and one of them, just at the bifurcation of the trachea, was as large as my thumb. Turning the trachea downwards, I found the pneumogastric nerve fast to this gland, somewhat flattened over the gland, and at one point it seemed to be embedded in it. Whether this had anything to do with the pulsation of the heart is another question.

Before death we thought there might be some disturbance of the brain, but after examination of the chest and throat we omitted any further examination. There was thickening of the tricuspid valves, but nothing to interfere with their action. The fibrous attachment of the semilunar, pulmonary and aortic valves had this yellowish, creamy color, with a layer of fat laying on the point of junction. The fibrous ring had seemingly disappeared. Upon the auricular septum, and the auriculo-ventricular septum, the fatty layer was infiltrated with serum, and seemed to be breaking down, so that it presented a different appearance from the fat at any other part of the body. To look at the woman you would not have taken her to be more than fifty years of age. She was a woman of remarkably well preserved intellect.

DR. WM. PORTER—It seems remarkable that fatty degeneration should produce such a persistently slow pulse, and we would naturally look for obstruction to the motor nerve supply somewhere. I know not if the doctor would be willing to say that this involvement of the nerve was sufficient to induce the slow beat of the heart. Pressure upon the motor nerves of any organ, and functional interference, are very important as cause and effect. The nerve supply may be injured possibly in one of four ways; either by central lesion, lesion of the trunk, peripheral lesion, or reflex irritation. I remember a case distinctly in which the recurrent laryngeal nerve of a little child was compressed to such an extent as to produce paralysis of the abductor laryngeal muscles; tracheotomy was performed to relieve the dyspnoea, the child dying shortly afterwards (a very young

child) with marasmus. On post-mortem examination a small gland was found inclosing the laryngeal nerve of the right side. I believe the case Dr. Mudd has reported to-night is unique. I don't remember any other case recorded in which the heart's action was so slow for such a length of time.

DR. MUDD—I would be unwilling to say that the pressure, or the involvements of the nerve with the gland, was sufficient to produce any disturbance of that kind, although it might do so. I have seen glands much larger connected with nerves without such results following. I believe it is a recorded fact that in fatty degeneration of the heart we have cases recorded in which the pulsation has been as low as 10 to the minute for some time before death.

DR. PREWITT—Some years ago I reported a case in this society of an old gentleman who had a very similar disorder. His pulse went down to 13, and he died in very much the same way. Before being taken with his fatal illness he had something like epileptic attacks, seemingly the result of anæmia of the brain. Connected with this there was disturbed action of the heart. At the time of his last illness his heart's action was very much diminished, and got down as low as 13 or 14. On making post-mortem examination we found marked fatty degeneration of the heart, and I have tracings of the heart fibres showing fatty degeneration. There was no other reason for the death that we could find.

DR. ATWOOD—Is it not a fact, Mr. President, that in many instances where there has been a slowing of the heart's action, there has been found, upon post-mortem examination, a condition, such as Dr. Mudd has described here this evening, a degeneration of the coronary artery, and an impairment of the muscles of the heart, in consequence of disturbance of nutrition?

DR. JOHNSTON—Unless we can be certain that Dr. Mudd's patient was free from all habits of using chloral, opium, alcohol, etc., it is too much like jumping at the conclusion to assert that death was the result of the presence and relations of the gland.

DR. FAIRBROTHER—I would like to inquire of Dr. Mudd if he observed the pulse and temperature during the continuance of this case, and if he noticed how much they departed from the normal pulse temperature, and pulse respiration ratio?

DR. MUDD—I observed these, but did not pay particular attention to this relation to the pulse.

DR. FAIRBROTHER—I make this inquiry as bearing upon the diagnosis of the case—whether it was one of central neurotic origin, or a simply organic affection, as fatty degeneration. It is a pretty well established fact, I believe, that in cases of slowing of the heart's action, there is less disturbance of the pulse-respiration ratio when this slowing is due to central nervous disorder, than when it is produced by disease of the organism itself. In some cases of organic disease, as fatty degeneration, the respiratory movement may fall little below the normal standard, while the heart's action is reduced as low as we have heard mentioned here to-night. On the other hand, when this action is reduced by central lesion, the breathing is slowed in about the same ratio to that of the pulse.

DR. MUDD—I know this lady was a person free from the habit of using narcotics of any kind. As to the pulse, so far as I know, it was at the normal standard until Sunday. On Monday morning at 8 o'clock it was 32; on the next morning it dropped to 15 and remained there until her death.

DR. PORTER then said he was mistaken in pronouncing Dr. Mudd's case unique; he had understood him to say that the pulse had been at 15 for a much longer period before death.

DR. POLLAK—A teamster set 32 came under my care, nine or ten years ago, who had been a victim of *sunstroke* a year before. He was a man of robust, herculean frame. He had since suffered from an intense headache, which was only partially relieved by depletory, anodyne, neurotic remedies, and counter irritation. But the most peculiar feature of the case was the slowness of his pulse, which went down to 9, and never exceeded 14 beats in a minute during the four weeks of my attendance. In consultation with Dr. Bauduy we agreed that there must be grave cerebral lesion, which gradually developed into dementia. The family was advised to place him in a hospital for the insane, but our warning was not heeded. A few weeks later I was subpoenaed before a coroner's jury. My patient had killed his wife, to whom he was devotedly attached, and with whom he had lived many happy years. The case was never tried in the criminal court. For some reason I had to testify in it in the probate court. The patient was sent to the insane asylum for life. I shall inquire whether he is there yet, and whether the peculiarity of his pulse is still existing.

Book Reviews.

MINOR GYNÆCOLOGICAL APPLICATIONS AND APPLIANCES. By J. HALLIDAY GROOM, Lecturer on Midwifery and Diseases of Women at the School of Medicine; Physician to the Royal Maternity Hospital; Late Tutor to the Midwifery Class, University, Edinburgh. [E. & S. Livingston, 57 South Bridge St., Edinburgh, Publishers.]

This little work is designed by the author to give a short and practical account of the most common gynæcological operations and appliances. He has succeeded in making the account commonplace and short, but in other respects the undertaking is not a brilliant success. The book is terse and unsatisfactory in many details, and in some respects pernicious. For instance, the author recommends the use for diagnostic purposes of Simpson's sound, and that without a speculum, and illustrates the method of performing the dangerous and delusive operation of introducing it. The same instrument is also recommended to replace a retroverted or retroflexed uterus. Of course such teaching can have little weight with the experienced, but since the work is especially intended for students, this instruction, as well as some other advice, is unwarranted and dangerous. It betrays, as do the worthless and obsolete instruments that are figured in other parts of the work, a want of discrimination, and is one of several convincing proofs the book contains, that its compiler transcended the sphere of his usefulness when he appeared in the role of an author. The work contains no valuable information that may not be found in all of the standard textbooks on the subject, and presented, too, in a fuller, more practical and acceptable form. Most of the illustrations are good, but are copied from other works, and having long done duty, are familiar to all students of this branch of medical literature. One of the original drawings, that on page 29, designed to represent a patient in Sim's position, misrepresents that position more effectually than we supposed it was possible for any artist to do. The mechanical features of the work are particularly good, and comport in excellence with other publications of Messrs. E. and S. Livingston.

W. L. BARRET.

THE STUDENT'S GUIDE TO THE DISEASES OF WOMEN. By ALFRED LEWIS GALBAIN, A. M., M. D., F. R. C. P.; Assistant Obstetric Physician and Joint Lecturer on Obstetric Medicine to Guy's Hospital; Examiner in Physiology and in Obstetric Medicine to the University of Cambridge, etc.

This small volume presents in an attractive form and with sufficient amplitude most of the subjects that are ordinarily treated of in more complete works on the diseases of women. Every

page and chapter bears evidence that the author is familiar with his subject, both theoretically and practically. It is a convenient book for reference, and the information to be gleaned from it is generally the latest and best. The busy practitioner can refresh his memory on almost any subject by a hasty glance at this little book, when much more extensive reading would be necessary to attain the same purpose by a reference to any one of the popular text-books now in use. It contains little that is original, but condenses in a pleasant and practical form most that is known in regard to the diseases of women. We commend it to our readers as a book that will be useful and satisfactory to its possessor. It is published in the uniformly excellent style of Lindsay & Blakiston, Philadelphia.

W. L. BARRET.

A MANUAL OF THE PRACTICE OF SURGERY. By W. FAIRLIE CLARKE, M. A. and M. B., F. R. C. S., Assistant Surgeon to Charing Cross Hospital.

This is one of Wood's Library of Standard Medical Authors, for 1879. It is a book of 309 pages. The author has embraced much that is valuable and important to the general practitioner and student in his epitome of surgery. His style of writing is entertaining, and he places what he conceives to be important points in practice very clearly and conspicuously before his reader. We think it fortunate for the success of the book and for the profession that the book had an American editor, for he has supplied some very important omissions in practical surgery, as accepted and practiced by American surgeons.

The book is cheaply printed, and the illustrations, such as are original and new, are very coarse, though in some instances clear, and delineate very well the condition of cases as found in the author's practice, who drew the sketches from which the cuts were made. Some of these cuts give little more than the outline of the part exhibited, failing utterly to give anything of the appearance of the surface of the tumor or the diseased part. This habit of making sketches of cases presenting in practice has evidently been of value to the author, for his descriptive powers are good and his observations acute. These qualifications of the author have enabled him to sift well the literature of surgery and to condense its teachings and the results of his experience, so as to produce a valuable book in a small compass.

I do not think his practice or pathology will in every instance meet with the approval of American surgeons. For instance in speaking of the treatment of fractures of the thigh, he does not mention Buck's method by weight and pulley, or Hodgen's splint. In disease of hip-joint, which he says "is a truly scrofulous disease," in defining his treatment he says, "in the early stage, the limb should be extended and fixed by means of a long splint. In young children it is an excellent plan to lay

a sand pillow on each side of the body, and a short one between the legs, and stretch a sheet over them; or a weight, to be gradually increased, may be fixed around the ankle, and hung over the end of the bed." This with counter-irritation and leeches constitute his local treatment. This will hardly meet the approval of modern surgery. The book will find acceptance among those who desire an easy reference to the principles and practice of surgery, and will no doubt answer the purpose it is designed to accomplish in Wood's Library. H. H. MUDD.

A MANUAL OF INORGANIC CHEMISTRY, arranged to facilitate the experimental demonstration of the facts and principles of the Science. By CHAS. W. ELLIOT, Prof. of Analyt. Chemistry and Metallurgy, and FRANK H. STORER, Prof. of Industrial Chemistry in the Massachusetts Institute of Technology, with an Appendix on Chemical Manipulation. pp. 668. Ivison Blakeman, Taylor & Co. [John C. Ellis, Agent, St. Louis.]

The plan of this work is new, teaching more "by example than precept"; more by the *experimental* and *inductive* method, than by the discussion of principles separate from experimental demonstration; by a process not unlike that by which the facts and principles of the science were originally established. I have examined the work with a good deal of interest and care and can truly say that both student and teacher indeed, will find the book an invaluable aid and director. To the medical student it is particularly serviceable, learning and guiding him as does his *Dissector* in Anatomy. It is especially adopted to laboratory work; and the teacher will find it of great advantage in the classroom. It fills a niche that was heretofore unoccupied and meets wants that no other book does. H. CHRISTOPHER.

LECTURES ON PRACTICAL SURGERY. By H. H. TOLAND, M. D., Professor of the Principles and Practice of Surgery and Clinical Surgery in the Medical Department of the University of California. Second Edition. Illustrated. pp. 518. 8 vo. [Philadelphia: Lindsay and Blakiston.]

It is impossible to imagine what feature of this work, could justify its publishers to issue a second edition. When the book first made its appearance, the medical press, almost unanimously pronounced it unfit, on account of its many sins of omission and commission to serve as a guide to the student or the practitioner.

Apparently neither the author nor his publishers were at all influenced by this criticism, for with the exception of adding one lecture, that was omitted in the first edition, and two cases of aneurism, the original lectures have been reprinted.

The time is passed, it is hoped, when publishers who have a reputation at stake can harmonize the printing of such literature as this, with the duty they owe to a learned profession.

F. J. LUTZ.

Editorial.

MEDICAL ASSOCIATION OF THE STATE OF MISSOURI.

This Association will meet in Carthage on the 18th, 19th and 20th of the present month. Commutation rates have been secured from the Gulf Railroad from Kansas City to Joplin, and on the Missouri, Kansas and Texas and the St. Louis and San Francisco Railroads. Rates will be full fare going and one-fourth fare returning. There is every indication that there will be a large meeting. We have heard from quite a number of physicians of the Southwest, and know that they are making unusual efforts to make the meeting in that part of the State a success.

The delegates coming from St. Louis and the east will arrive in Carthage at 12:30 P. M.; those from the west at 3:30 P. M. The Association will convene in the Opera House at 4 P. M. of the 18th. On the evening of the same day, a night session will be held; again, forenoon and afternoon sessions on the 19th and 20th. On the evening of the 19th a banquet will be given to the members of the Association. Delegates will be met at the depot by the Committee of Reception and assigned to their respective places of entertainment. While the citizens of Carthage desire to extend their hospitalities to all who attend, ample hotel accommodations can be had by those who prefer them.

The profession of Southern and Southwest Missouri especially owe it to themselves to make this the largest meeting that has ever been held in the State. If the meeting is large it will be interesting; if there is a small attendance of those who live in the Southern counties, it will, in all likelihood, be a long time before we will again visit this beautiful part of the State.

There are hundreds of physicians in the Southwest who very seldom attend any kind of a medical meeting, their excuse being that they could not take the time from their practice to attend any distant Convention. We hope to meet these here, as they now have the Association within a few hours' ride. Southern and Southwestern Missouri is now on trial; come every one of you; if you do, then we will have the largest and most instructive meeting ever held in the State.

County and district Societies should have a full delegation in attendance. If any member of a society has been delegated to

represent it at the Association and cannot attend, see that the honor is given to one who *will* attend. There are many who would attend if they were appointed delegates, and there are quite a number who succeed in getting themselves appointed, for the *notoriety* of the thing, who do not expect to attend. It is only he who represents the Society by his presence in the Association who receives the *honor*.

ILLINOIS STATE MEDICAL SOCIETY.

BELLEVILLE, Ill., April 15th, 1880

We, the undersigned Committee of Arrangements, of the ST. CLAIR COUNTY MEDICAL SOCIETY, acting in concert with the State Society Committee of Arrangements, beg leave to inform you and all worthy members of the profession desirous of attending the Annual Session of the State Society, to be held in Belleville, May 18, 19 and 20, that complete arrangements have been perfected with railroads, hotels and halls, to ensure the comfort of the delegates attending.

Rates on all roads in Illinois will be one and one-third, and one and one-fifth usual fares to those having permanent Secretary's certificate of their having been in attendance.

An interesting programme for the three evenings of the session has been arranged, including two popular lectures by gentlemen eminent in the profession, for the first and second evenings, and a first-class musical concert and banquet for the third evening. A full attendance is earnestly requested.

W. WEST, M. D., Chairman,
L. J. BECHTOLD, M. D.,
J. L. PERRYMAN, M. D.,
J. KOHL, M. D.,
F. RUBACH, M. D.,
M. W. HORINE, M. D.,

We regret exceedingly, that the Illinois and Missouri State Associations convene on the same days, as many from this city and State would like to attend both meetings, especially as the Illinois meets at Belleville, only an hour's ride distant.

The Chairman of the Committee of Arrangements, Dr. W. West of Belleville, desires us to state "that an invitation is extended to the St. Louis Medical Society as a body, to attend this session." Many of the professors of this city, we have no doubt, will accept this kind invitation, as ample opportunity is afforded to go at almost every hour of the day, by the large number of daily trains, (twelve) going between Belleville and this City.

Prof. John T. Hodgen will, by invitation, deliver a popular address on "The Formation of Character." We anticipate that the mode of presenting this will be, like the Doctor's own character, peculiar, marked and pleasing.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—APRIL, 1880.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	40.0	57.0	18	61.0	85.0
2	53.5	70.0	19	41.5	60.5
3	56.5	75.5	20	44.5	63.5
4	55.0	74.0	21	50.0	75.0
5	53.0	72.5	22	59.0	82.0
6	47.5	57.0	23	68.0	87.0
7	32.0	49.0	24	70.0	87.0
8	37.5	53.0	25	60.0	73.5
9	38.0	67.5	26	51.5	60.0
10	53.5	63.0	27	42.5	68.0
11	34.5	50.5	28	53.5	65.0
12	38.0	62.5	29	53.5	65.0
13	49.5	80.0	30	42.5	63.5
14	54.0	83.5	31		
15	54.0	68.0			
16	60.0	68.0			
17	42.5	50.0			
			Means	59.7	66.2
			Monthly Mean	57.9	

Quantity of rain, 3.19 inches.

MORTALITY REPORT.—CITY OF ST. LOUIS.

FROM MARCH 28, 1880, TO APRIL 10, 1880, INCLUSIVE.

Ovarian Tumor...	0	Parotitis.....	1	Convulsions & Trismus Neonatorum	19	Placenta Prævia...	0
Measles.....	7	Inanition, Want of		Hydrocephalus and		Apoplexy.....	2
Syphilis.....	0	Breast Milk, etc.	7	Tub. Meningitis..	2	Cyano-is and At-	
Scarlatina.....	3	Alcoholism.....	2	Meningitis & En-		electasis.....	
Pyæmia & Septicæ	3	Rheumatism & Gout	0	Cephalitis.....	5	Premature Birth	0
Erysipelas.....	0	Cancer and Malignant Tumor...	5	Other Diseases of the Brain and Nervous System	16	Deaths by Suicide	6
Diphtheria.....	4	Phthisis & Tuberculosis, Pulmon.	30	Cirrhosis of Liver and Hepatitis...	8	Deaths by Accident	7
Membran's Croup.	1	Bronchitis.....	12	Enteritis, Gastroenteritis, and Peritonitis, and Gastritis	12	Deaths by Homicide	1
Whooping Cough.	8	Senility.....	8	Bright's Disease and Nephritis...	2	Congenital Deformity	12
Diabetes Mellitus.	1	Pneumonia.....	37	Other Diseases of Urinary Organs	2	Total Deaths from all Causes	276
Inflam. Umbilicus.	1	Heart Diseases...	10	Metritis.....	1	Total Zymotic Diseases	60
Typhoid Fever....	5	Other Diseases of Respiratory Organs	11			Total Constitutional Diseases	43
Cerebro Spinal Fe.	0	Rupture of Womb	1			Total Local Diseases	157
Remittent, Intermittent, Typho-		Marasmus—Tabes Mesenterica and Scrofula	5			Total Developmental Diseases	23
Malarial, Congestive & Simple Contin'd Fevers,	9	Aneurism.....	0			Deaths by Violence	14
Puerperal Fevers..	2						
Diarrhoeal Diseases	7						

CHAS. W. FRANCIS, Health Commissioner.

THE
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Original Contributions.

ARTICLE XVII.

CONTINUOUS ELASTIC EXTENSION IN TALIPES OR CLUB FOOT.

By W. C. PIPINO, M. D., Surgeon in Charge of Blessing Hospital, Quincy, Ills.

In presenting the following cases of orthopedic surgery from private practice, to the profession, nothing new or original is claimed. It is merely to impress upon the profession the importance of perseverance in the treatment of deformities, without which nothing can be done. The surgeon who will operate or attempt to treat club-foot, ankylosis, etc., and leave the patient to the care of his friends, will have the mortification of seeing his patient as bad, if not worse, than he was before the operation. It is a fact taught by actual experience, that parents will not subject their little ones to any form of treatment, which gives the child pain and causes it to fret more or less while under treatment. They require constant attention on the part of the surgeon. It is necessary to see your patient often, and if that is impossible better not operate. On several occasions I had to repeat operations through the failure of a sympathizing and loving mother to apply the extension properly.

Before relating the different cases of club-foot I have operated upon, it is necessary, for a better understanding, to enter

upon the method of treatment. The causes or supposed cause of talipes will not be discussed. It is well known that to Dr. H. G. Davis, of New York, we are indebted for the introduction of "elastic extension" in the treatment of deformities, and in no cases does it act so well as in talipes. With elastic properly applied, the most powerfully contracted muscles can be overcome by its constantly acting force—tires them out and makes them let go, so to speak. The muscles at fault in talipes varus are the gastrocnemius, soleus and plantaris, which merge into the tendo-achilles. The two tibiales muscles, the tibialis anticus and tibialis posticus, are contracted and produce rotation of the foot; and, as this rotation increases, the central position of the tendo-achilles is gradually deviated from, and the achilles tendon comes to act in concert with the tibiales muscles in effecting rotation and adduction of the foot.¹

In addition to these, there is contraction of the plantar muscles merging into the plantar aponeurosis. It is to overcome this contracted state of affairs that we make use of the elastic or "artificial muscle," as it has been called; the muscles and ligaments are not only contracted, but are actually shortened by being kept in this contracted position. "To remedy this shortened state of the muscles, ligaments and the other soft tissues, we must keep them unremittingly tense, that the new material deposited may go to lengthen them, which it will not do if the parts to be lengthened are not kept tense. In addition and at the same time that these tissues are being lengthened, those upon the opposite side of the limb, whose function the rubber performs, being kept lax, are shortened by the same changed circumstances of nutrition. Hence, in the end, we have them of an equal length upon both sides of the deformed part. This office the 'artificial muscles' perform, in addition to its educating and exercising those which fail to do their duty."

If we wish to restore the functions of the foot in talipes, we must restore tone and ability on the part of the muscles in obedience, to contract, and as they are unable to respond to the will, it becomes necessary to resort to the use of artificial muscles in place of those incapacitated, which should be so adjusted as to simulate the natural movements and to overcome the contracted opponent. In applying the elastic extension to club-foot, I

1 Conservative Surgery.

think the method employed by Dr. Prince the most successful that I have tried. It consists in applying a board cut in the proper shape to fit the sole of the foot, covered with adhesive plaster, to which is attached a piece of elastic ribbon opposite the metatarsal bone of the little toe; a tin plate, to which a hook is attached, is made to fit the leg below the knee; this is also covered with adhesive plaster, and held in position by two or three strips of adhesive plaster encircling the limb. The board having been applied firmly to the foot by means of plaster, as well as the tin plate to the leg, the whole is covered by a roller bandage and the elastic ribbon made tense by attaching it to the hook on the tin plate; the foot is now pulled in the opposite direction to that maintained by the deformity, and must be kept so until the contracted muscles are entirely overcome. In obstinate cases, where the deformity resists the reduction by extension, Dr. Prince recommends the "occasional application of force, while the patient is insensible from the influence of ether."² I invariably etherize my patients and apply force, which greatly facilitates matters and shortens treatment.

By way of illustration and in support of the above, the following are appended :

CASE I.—*Double Talipes Varus*.—On October 2d, 1875, Dr. P. A. Heitz, then of Hannibal, Mo., sent me C. H., age 2½ years, with double talipes varus (see figure 1). The little patient was

Fig. 12.



put under the influence of ether and forcible extension applied by means of our hands to each foot until they almost resumed their natural position. The foot board and elastic extension was applied, loose at first for a day or two, then gradually tightened up. This treatment was continued until February 19th,

² Prince's Orthopedics.

'76, when all extension was taken off and the patient considered cured (see figure 2) in a little over four months from commencement of treatment.

Fig. 13.



CASE II.—*Talipes Varus, left foot*.—E. Simms, of Missouri, age 5. When two years of age, was operated upon by a St. Louis surgeon; tendo-achilles divided and shoe applied, but no improvement. March 26th, 1875, etherized patient and used forcible extension; afterwards elastic extension. July 6th, 1875, foot straight and remains so without apparatus. Discharged cured; treatment less than four months.

CASE III.—*Double Talipes Varus*.—E., male, age 2 years, appeared for treatment July 6, 1875, for double club foot. Administered ether, applied forcible extension, then elastic extension; continued to do well and was discharged November 30th, 1875, cured; treatment little over four months.

CASE IV.—*Double Talipes Varus*.—K. B., female, age 4 years and six months, presented herself for treatment February 6th, 1876. Both feet strongly flexed and immovable. Etherized patient and applied forcible extension; afterwards elastic extension. February 19th, there not being much improvement, the patient was again etherized, and forcible extension again applied, when the plantar fascia was felt as well as heard to tear; the foot immediately responded to extension. The right foot was similarly treated. March 4th, great improvement; feet not yet in normal position; ether was administered and forcible extension applied for the third time, followed by the elastic extension. March 28th, her father writes: "She is on her feet the whole day long from morning till night."

CASE V.—*Left Talipes Varus*.—S., female, age 3 weeks. Simple elastic extension only was applied in this case, which yielded a perfect result. Unfortunately the little patient died

from an attack of cholera infantum a couple of months after extension was taken off.

Many more cases could be recorded, but enough has been said to show the simplicity and superiority of "elastic extension." It will be observed that in none of the cases recorded was tenotomy once resorted to by me. I think it a useless operation in this class of cases. We can succeed as well without it. Then why perform it? Only once have I divided the tendo-achilles, and then unnecessarily, as I believe the case would have progressed as well without it. No doubt some cases would succeed as well without forcible extension as with it; others would not, as Case IV demonstrates. Whether it is absolutely necessary or not the application of it cannot do harm, and always expedites the treatment. The after treatment consists simply in giving enough morphia to allay pain and tonics for the general health.

ARTICLE XVIII.

THROMBOSIS ARTERIÆ CORONARIÆ CORDIS. By A. WISLIZENUS, M. D., of St. Louis Mo.

In the proceedings of the St. Louis Medical Society in the last JOURNAL, Dr. Mudd reported a highly interesting case entitled "Unusual Slowness of the Heart's Action." I will recapitulate here only the main features of the case.

"An old lady of 78 years, and in her ordinary state of health, was suddenly taken with pain in the chest, cold extremities, respiration about 20 in a minute, but pulse of the heart only 18 a minute; her intellect was perfectly clear. No organic disease of the heart or other organs was appreciable. Some stimulants raised the pulse temporarily to 32, but gradually it sank again to 15 and 13 and on the sixth day; after some convulsions, she died. The post-mortem examination showed a moderate deposit of fat on the pericardium, the walls of the heart were thin and yellowish (from fatty degeneration). A fibrous, yellowish clot

was found in the right ventricle projecting in the pulmonary artery on one side and on the other, into the auricle. The coronary arteries, especially the left, presented well marked calcareous degeneration; at one point in the coronary artery, just at the ventricular branch, there was a distinct narrowing of the calibre. At the bifurcation of the trachea, a much enlarged bronchial gland was found compressing and flattening the pneumogastric nerve."

In the discussion that followed, some of the members laid great stress upon the state of this nerve, because want of innervation might account for the collapse of the heart; others considered the fatty degeneration of the heart a sufficient reason. In my humble opinion neither the one nor the other could account for the suddenness of such an attack. So sudden an effect requires also a sudden cause.

Our limited experience in such rare cases has taught us, that a thrombosis of the coronary artery, the blood of which feeds and nourishes the muscles of the heart, is the principle if not the only cause of these mysterious, fatal strokes. When the so-called thrombi or fibrous clots of blood are formed in small arteries like the coronary, their constant effect of impeding the current of the blood and completely obliterating the channel is the quicker. Dr. Mudd in his case does not expressly mention the presence of such thrombi in the coronary arteries, but he speaks of their calcareous degeneration and their partial narrowing. Such calcareous deposits are fully as capable of producing such impediments and complete obliteration of the arteries as the thrombi themselves. Cohnheim in his lectures on general pathology (published in 1877) mentions that Bezold and Panum obtained quite the same result by experimenting on animals, either in compressing their coronary artery by clamp-pincers or by injection of a fine emulsion of beeswax.

Such cases are indeed rare and deserve to be put on record especially when observed by competent physicians and verified by post-mortem examination. In the interest of science, I will therefore report another case of obliteration of one coronary artery of the heart that occurred in this city four years ago. The case was under the attendance of Dr. Wichman and the late Dr. Hammer. The latter, after leaving St. Louis for Vienna, considering the case justly of high scientific interest, published it in the *Wiener Med. Wochenschrift* 1878, and sent me a

copy. But as this German medical journal is not accessible to many American physicians, I take this occasion to present in this journal a short summary of all the essential points in said paper.

"The patient was a German of 34 years and strong constitution, had a year before an attack of acute rheumatism, a second one one month before, from which he was just convalescent with an average pulse of 80 in a minute. Suddenly, when sitting in a rocking chair, he was seized with collapse, with cold extremities, a feeble but regular pulse of 40 a minute, but no pain, and intellect quite clear. Examination of the chest showed no sign of exudation either in the heart, lungs or pleura, nor any organic disease of the heart. But the pulse gradually sank down to 8 a minute. Examination of the heart in this condition exhibited first a feeble but still distinct systole and diastole lasting one second, then a clonic spasm of the heart with a vibrating sound lasting five seconds, then a quiet pause of two seconds and so on in the same regular repetition. In the absence of all other organic defects, Dr. Hammer, by the exclusive method, came to the conclusion that such a sudden collapse and gradual sinking could only be explained by a sudden obliteration of one of the coronary arteries of the heart. The patient died on the third day. The post-mortem examination was allowed only on the condition that the heart only should be examined. In the pericardium about a spoonful of serum was found, in the ventricles quantities of fibrinous coagula (formed probably in *articulo mortis*); endocardium and valves were sound, muscles anæmic. In examining the semi-lunar valves of the aorta, which were sound themselves, a large thrombus of fibrinous clots and excrescences was discovered in the right sinus Valsalvæ that extended to the outlet of the coronaria and obliterated it entirely. The complete obliteration must in all probability have taken place very suddenly."

Translations.

FROM THE ITALIAN.

STORIA COMPENDIATA DELLA CHIRURGIA ITALIANA. DAL SUO PRINCIPIO FINO AL SECOLA XIX. Del Professore CARLO BURCI. [For the JOURNAL.] JOSEPH WORKMAN, M. D., Toronto, Canada, Translator.

COMPENDIATED HISTORY OF ITALIAN SURGERY—CONTINUED.

MARCO AURELIO SEVERINO.

Early in the 17th century a surgeon appeared in Naples who gave a great impulse to the art, caused astonishment by his doctrine, and by his own merits raised himself into fame throughout all Europe. His spirit, independent, bold and learned, made its way out of the very obstacles which it met, and daringly broke through those obstructions which a too great timidity had imposed on surgical practice. This man was *Marco Aurelio Severino*, who was born in 1580, in Tarsia (Calabria Citra,) a short distance from Coenza. Having applied himself to the study of jurisprudence, because his family urged him to do so, as soon as, by the death of his father, he found himself free, he turned quickly to medicine, to which his natural talent called him; next he applied himself to surgery, in which he was instructed in Naples by one Guilio Tasolino. In this branch he acquired so much fame, that he was placed in the chair of anatomy and surgery and soon became first surgeon in the grand hospital of Naples. Disdaining the trivial compensation received by surgeons and the feeble and often inefficacious treatment then adopted by them, he finally determined to reform the art and to lead it to the realization of more honorable rewards. In order to do this and to show himself an innovator, by new methods, and precepts that appeared strange, it was necessary to beat down prejudices and old practices and to offend the grave authority of many masters. Poisonous envy then set to work and he was accused in the tribunal of the Inquisition of having used on his patients imprudent and incendiary measures. He was ejected from his public office, but it was restored to him after he

had defended himself in a learned *Apologia*. Being accused a second time, on the same grounds, he was imprisoned, and when he regained his liberty, being persecuted by all, he was forced to fly from Naples, but afterwards, through his merits and his fame, he returned triumphantly and had a little quiet to his troubled spirit.

He gave himself energetically to work for the achievement of that surgical reform so long meditated by him; and so great a reputation did he obtain by his works, his liberal instruction and his bold operations, that a majority of the students, not only of Italy, but of all Europe, were moved to hear him and to imitate him. Even the celebrated University of Padua was emptied of scholars, for at that time they preferred to attend, not where medical students were most speedily passed through, but where best and most intelligently the precepts of doctrine and art were presented.

He died on the 15th of July, 1656 and was buried in Naples in the church of San Biagio de Librai. He was nourished with that prime vital aliment for surgeons, anatomy.

In 1629 he published in Naples his *Historia anatomica*, etc. He afterwards published surgical works of great value; these were his *De sacondita abscessum natura*, Naples 1632; *De efficaci medicina*, Frankfort 1646; *Trimembris chirurgia*, Frankfort 1653; The spirit of surgeons was raised to high satisfaction, from seeing the art in Italy treated by a man of such a noble mind, at once a physician, a pathologist, a zoologist, a erudite in medicine as ever any one had been and the author of many and various works, in which his acute provident and profound genius was apparent. He saw in fire the remedies most natural and most excellent for the cure of the greater part of external infirmities, and in this direction he certainly passed all rational limits and suffered in consequence the just criticism of contemporaries and of posterity. He employed fire and the knife with more than courage, with audacity. It was unavoidable that a man of Severino's temperament must have broken the ice of his time, shaken off the inertia of his confreres and raised the art to rejoice in its great resources. Surgery in the end of the 16th and the beginning of the 17th century, had been reduced in Italy to a paralytic state, helping itself with cerates, balsams and ointments. It was demanded that some strong spirit should enfranchise her and by tearing off the enforcements which held her un-

der the authority of Galen and the Arabs, should forcibly lead her back to her pristine dignity. Such a spirit was Severino, who, if in the impulse he gave to surgery, sometimes passed the limits of actual necessity, yet that impulse was necessary, natural and useful. The timid and fearful were firmly urged forward, not softly caressed.

[The author, apparently unconscious of his own prolixity, proceeds to exhaustion in his eulogy of Severino; but it might be a severe trial of the patience of our readers, to accompany him to the close. Suffice it to say that the ghost of Severino can never reproach Burci of having been parsimonious in his praises of its mundane predecessor.]

[The following passage may not be uninteresting to the cultivators of a certain specialty.]

"In the commencement of the 17th century, there were some men of minor lustre to our country. Santorio Santoro was the inventor of various useful instruments, among which was a pulsometer. He modified the trocar of Canani and the *uterine speculum*; he wrote on surgical subjects and especially a treatise. *De Lithotomia sen calculi vesicae sectione, consultatio.*) Leyden (1638.)

The following is a more interesting extract.

"Valsalva was the first who proved that certain lesions of the brain produce hemiplegia of the opposite side and that such cases may run through without giving sign of their existence."

[Burci's retrospect of the state of surgery in England, Germany, Holland and France, in the 18th century, will be read with much interest and as the author returns to this subject near the close of his history, bringing it down nearly to our own times, we think it better not to divide it, but to present the two periods in connection.]

England began her life in surgery, for which she afterwards became so famous, in the works of *Richard Wiseman*, who was called the English Paré. He was, in the quality of surgeon, attached to the Royal family at the epoch of the revolution of 1640, and with them he went into exile and was taken prisoner at the battle of Worcester. Having regained his liberty in 1652, he devoted himself to his art and published works which deserved immortal fame, not so much for the wise and judicious principles they inspired, as for the candid and precise description

of practical facts with which they were enriched. Amongst his published works, the following call for record: *a treatise on wounds*, (London, 1670): *treatises on surgery*, (London, 1670).- *A system of surgery*, (London, 1734), etc.

Wiseman, in the country of Pott, Bell and Hunter, gave an impulse to surgical studies, which from that time forward were constructed with so much honor as to enable England to march in the front in all the advances of surgery, nor has she since lost her splendor, whilst disputing for the palm with other nations. The surgeons of England were entirely separate from the barbers and in the middle of the 18th century (1745), they obtained the authority of Parliament to constitute themselves a special corporation in London, preserving their ancient privileges, acquiring some new ones and erecting at their own cost that magnificent palace, the *College of Surgeons*, which is the seat of the School of Surgery and Anatomy, where students and masters work together for the advancement of the art; and the institution, once established and found to be useful, has never ceased to prosper, in that most happy land. The names of Cheselden, a famous lithotomist, of Douglas, Monro, White, Sharp, Cooper, Warner, Alanson, Percival Pott an able surgeon and eminent writer, Hawkins Smellie the obstetrician, and of the two Hunters form, with many others, an array of learned surgeons to whom our art in England has been indebted for the progress made by it in the 18th century and for the honor to which it was exalted and which it has fearlessly maintained ever since.

[The author, in several parts of his book, would seem to have obviously fallen into repetitions of interesting passages, which he has sometimes gracefully modified or augmented; but as the readers of the JOURNAL may prefer to dispense with such rehearsals, we go forward and reproduce some of the facts given near the conclusion of the history.]

"PERCIVAL POTT was born in London in 1713. In 1749 he was an ordinary surgeon in the Hospital of St. Bartholomew, and some of his works had begun to attract public attention. He published a completed collection of these in 1779. He was rough and awkward in manner, consequently too little compassionate towards the sufferings of others; he was a member of the Royal Society of Surgeons. He retired from practice in 1787 and died in the year following. He had, as son-in-law, JAMES EARLE, a very distinguished surgeon, who in 1790 published

the works of Pott, with notes and additions and was himself noted in England for his treatises on hydrocele and cystotomy. Pott's works treat of fractures and luxations, (1747.) Hernia in the new born, (1757.) Hernias in general, (1763.) Hernia of the bladder and lachrymal fistula, (1758.) Hydrocele and diseases of the Testicle, (1762 and 1771.) Fistula in Ano, (1765. Wounds, contusions of the body, fractures of cranium cerebral concussion, (1768 and 1775.) Cataract, polypus of the nose, cancer of scrotum, etc., (1775.) Paralysis of the lower limbs from spinal curvature, (1778 and 1782.)

Pott was a man of much skill in his art; he discussed matters and important subjects with singular ability, practical genius, and wise pathological and clinical views. His studies and instructions on injuries of the head, which he treated frequently by trephining with very simple instruments; those upon spinal paralysis, which was named after him; his treatises on hernias, together with other labors of great value, above recorded, have placed the name of Pott amongst the most distinguished surgeons by whom English surgery has been honored in the past century.

Another surgeon of great fame, who flourished after Pott, and to whom we owe an elegant system of the *Institutes of Surgery*, was BENJAMIN BELL, a student of Monro in the school of Edinburgh, a pathologist and an able operator. Having passed through his studies and acquired his surgical diploma, he traveled on the continent, visited the principal universities of Europe, and was well received in Paris. Having returned to Scotland, he became a surgeon of the Royal Hospital, of Edinburgh, a member of the college of surgery, and of the Royal Society. He died in the beginning of the present century, honored as a benefactor of the university and an exemplary cultivator of science and art. Besides his *Classic Treatises of Surgery* (Edin., 1783), he wrote a work on *Ulcers and Diseased Joints* (Edin., 1778); on *Hydrocele and Some Diseases of the Testicle* (Edin., 1794); on the *Treatment of Virulent Gonorrhœa and Lues Venerea* (Edin., 1797.) All his labors have an eminently practical and experimental character, are illustrated by an abundance of well observed facts, and are upheld by most opportune observations, with judgment so rigid and just, that there is not a careful cultivator of surgery who is not familiar with his works. His system of surgery, did the necessary brevity of this summary

permit, would merit an accurate exposition, in order to exhibit its great worth, and the estimation in which it was held in all schools. There is not a subject of pathological or operative importance, which is not treated in it with ability, criticism and erudition. This work of Bell surpasses those of Heister and Calissen, and may be placed on a par with the *insitutioni chirurgiche* of our Monteggia, which has so much advanced the progress of Italian surgery.

Another English pathological anatomist and surgeon, truly sovereign, whose fame has flown over every part of Europe, a man of almost divine genius and untiring perseverance, was JOHN HUNTER, who was born at Caldenwood, in the parish of Kilbride, in the county of Lamark, Scotland. Palmer, speaking of him, says, "If we would go back to the true origin of progress in modern surgery, the gem of all its great improvements will be found in those principles laid down by Hunter, which after that great man were introduced into the healing art. As an able builder, he placed the science on so ample a basis, that his work has held the front in all the revolutions of public opinion, without injury in the conflict, and even bringing back fresh glory, and complete confirmation of all his ideas." Hunter, at the age of 20, was uninstructed in letters, or any branch of science, habituated to a free and wandering life, and regarded as a libertine. He asked his brother William, an anatomist and obstetrician of high repute in London, if he would receive him into his anatomical theatre. He received him and adopted him, and John soon became one of the first anatomists. He became a military surgeon in the Royal Marines; next a private teacher of anatomy and surgery, and finally, after the death of Pott, the first surgeon in London. He had many affectionate scholars, among whom were Jenner, Home, Abernethy and Astley Cooper. He erected, at his own expense, the museum called the *Hunterean*, into which he gathered preparations of the greatest importance to human, comparative, and pathological anatomy. It was he who, in England, placed surgery on the unshakeable basis of anatomy, human and comparative physiology, and the most circumspect and efficacious clinical observance. He presented as a scientific truth nothing which his own experiments did not verify. His was the truly Baconian practical philosophy. Even more than surgery, in which he was so distinguished, he loved comparative anatomy, which he so amply illustrated, and

for which he sacrificed his all, to the injury of his own family. He gave golden precepts on surgery (*Principles of Surgery*); he wrote on anatomy (1771); on the diseases of the teeth (1778); he published a book of much value, on *venereal diseases* (1786); he has left to us the most complete *treatise on the blood, inflammation, and gunshot wounds* (1794); and one on the *animal economy* (1786), which is a treatise of wisdom, and in which human and comparative anatomy, experimental physiology and pathology serve for the most correct instruction in the knowledge of the human body.

It was Hunter who gave to surgeons the scientific and anatomico-pathological reasons for encouraging them in ligaturing aneurismal arteries between the tumor and the heart (the method ever since called *Hunterian*), and in doing so he laid the basis of the convenience and the utility of this most efficacious operation. Many are the surgical memorials written by him, found in the philosophical transactions and other periodicals of London, but the most numerous are those on human anatomy, on comparative and pathological anatomy, on physiology and natural history.

Hunter was a man frank, laborious and beneficent, a protector of the studious, an original in genius, easily led into excesses of temper by the impetuosity of his character. He died suddenly in St. George's Hospital, London, on October 16th, 1793, whilst at a meeting in which he became too much excited. The example of this singular man, who lived through many years in comparative penury, shows us once more how the will may become a lever to the power, and that to the willing to whom God has given genius, nothing is difficult. That rough lad of twenty years, that brawling scamp, that man of slender friendships, that Kean amongst surgeons, left, at his death, the fame of a sage, of a man devoid of fear, and a benefactor to humanity, and he bequeathed to science a MUSEUM which cost him more than a million of lires (\$200,000). Behold, then, how much a man who is moved by the noble sentiment of perfecting himself, may do in rendering himself useful to others and to his country; at the age of twenty years John Hunter resolved to be able to do so, and he lived to do it.

Contemporary to Pott, Bell, and Hunter, contributors to the progress of surgery in England, at the close of the last century, were Everard Home, Michael Underwood, George Ellis, Boyn-

ton, Charles White, Walter Weldon, Marshall, and, above all, the obstetricians Smellie and Rawlens, Russell and Wiedman, who wrote on necrosis and the regeneration of bones, and *John Abernethy*, who was one of the most distinguished students of John Hunter, and one of the most celebrated surgeons of England. He was born in the town of Abernethy in 1768, and died in London in 1831.

[NOTE.—Burci has been wrongly informed as to the birth of Hunter. He was born in London in 1764. He was the grandson of Rev. John Abernethy, a Presbyterian minister of the north of Ireland, who wrote a volume of sermons on the Divine attributes, which Dr. Samuel Johnson said were the best he had ever seen; but being informed they were written by a dissenting minister, he would never again open the book.]

Abernethy was surgeon in chief of Saint Bartholomew's Hospital. He wrote many works: Lectures on "Surgery;" on "Local Diseases;" on "Aneurism;" on "Diseases of the Urethra, and the Diseases which appear to be Syphilitic;" on "Injuries of the Head;" on "Tumors;" on "Lumbar Abscess," etc. His fame was universal, and he was honored and lamented. He opened the way to the celebrated Sir Astley Cooper.

Proceedings of Medical Societies.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

APHONIA, RESULTING FROM INFLAMMATORY THICKENING AND INFILTRATION OF THE VENTRICULAR BANDS. By J. O. ROE, M. D., of Rochester, N. Y.

The following cases of aphonia and stenosis of the larynx, caused by inflammatory thickening, infiltration or induration of the ventricular bands *alone*, are of interest on account of the infrequency of inflammations of the larynx to become localized exclusively in these parts:

CASE I.—Mrs. R., *set.* 37 years, consulted me July 1st, 1874, for relief from aphonia, resulting from a severe cold contracted on the 16th of the previous March. During this time she suffered very much, particularly in damp weather, from dyspnoea, which was aggravated on the slightest exertion. She had a previous history of throat trouble dating from an attack of measles at twelve years of age. At sixteen she began to have considerable swelling of the thyroid gland, which became quite tender, giving her great annoyance until she was eighteen years old, when it subsided, leaving the throat trouble much aggravated. After that she was subject to frequent attacks of hoarseness from colds. Reading aloud, damp weather or night air would produce hoarseness and sometimes complete aphonia. On examination, the ventricular bands were found in a stage of sub-acute inflammation, much thickened and obstructing the vibration of the vocal cords. The vocal cords were normal, their free edges being seen, on attempted phonation, through the narrow aperture left between the ventricular bands. The remaining portion of the larynx was quite free from disease, except as the diseased condition of the bands was spread out slightly on the immediately surrounding mucous membrane. Applications were made to the larynx of a solution of argenti nitras (grs. xl-3j), alternated with a solution of equal parts of zinci sulphas (3j-3j), and glycero-tannin. Vapor inhalations of *co. tr. benzoin* were also given. The patient began at once to improve, and in four

days the swelling of the bands had so far subsided as to permit a low tuned laryngeal sound. Applications of electricity to the larynx restored the function of the cords, as the thickening of the bands subsided. In three weeks her voice was clear and strong, and cod liver oil and iron soon restored her to excellent health.

CASE II.—Mrs. H., æt. 41 years, referred to me by my friend Dr. Jones, of this city. She had suffered from marked hoarseness, and much of the time complete aphonia, for five years. During her girlhood she was troubled more or less with asthma, shortness of breath, and palpitation of the heart. At eighteen, and also at twenty-one, she had attacks of pneumonia. Each attack was followed by loss of flesh and strength, and by a cough and expectoration of a muco-purulent substance. At twenty-six, when apparently having recovered from those difficulties, she had an attack of diphtheria contracted while laying out a child which had died of that disease. This attack left her throat sensitive to unfavorable weather and change of temperature. Five years ago her throat trouble was much aggravated by a severe cold, and she lost her voice completely. She had during this time a severe cough, considerable expectoration and much shortness of breath; also, a great deal of headache and pain in the back of the neck and in the chest. Family history quite free from scrofula or phthisis. Laryngoscopic examination revealed moderate stenosis of the larynx from thickening of the ventricular bands, the right side much more thickened than the left so as to obscure the right vocal cord. The left ventricular band was but moderately thickened, leaving the free edge of the cord visible during phonation. Both cords as far as could be seen were quite normal. Local applications were made of zinci chloridi (gr. xxx-3j.), alternated with a solution of equal parts of tannic acid dissolved in alcohol (3ij-3j.) and iodide of zinc (3ss-3j). Inhalations of compound tincture of benzoin with oleum pini sylvestris were also given. Internally, muriate of ammonia and tonics were administered, and the voice and health of the patient were restored in about six weeks.

CASE III.—Wm. B., æt. 25 years, coachman, referred to me by the family physician, January 11th, 1877. Five weeks previous to this time, while in Toronto, he contracted a severe cold by sleeping in a cold, damp room. Soon after he returned

to his home in Rochester. The trouble began with an ordinary sore throat. In about one week he had lost his voice, and had begun to have some difficulty in breathing, which increased quite rapidly, and was greatly aggravated on lying down and by damp weather. His appetite was poor, and he was gradually losing flesh and strength. The obstruction affected only inspiration, producing a peculiar stridulous sound, very painful to hear. Expiration was entirely free. On laryngoscopic examination, the ventricular bands were found to be greatly swollen from sub-mucous infiltration. The right one was much more swollen than the left, forming a sort of fold which projected across the larynx and acted as a valve, almost completely closing it during inspiration. Four years previous he had contracted syphilis, but I could not discover that this trouble was at all influenced by it. January 25th, the dyspnoea became so urgent, owing to a slight cold, that tracheotomy was performed to prevent impending suffocation. Local applications could now be deliberately applied to the larynx without fear of temporarily increasing the stenosis. By their use, in about three weeks the local infiltration and thickening of the bands were so far removed as to permit the removal of the tube, but owing to the timidity and fear of the patient lest he should have a repetition of his previous experience, it was allowed to remain in three weeks longer. It was then removed and the tracheal opening closed. About four weeks after the insertion of the tube, the patient began to exhibit symptoms of phthisis, and shortly consolidation of the apices of both lungs could be detected. These were combatted for a time, but in June, active tuberculosis with fever and hectic set in, and on August 10th, he died. At the autopsy, all signs of inflammation and induration of the ventricular bands had disappeared. Notwithstanding its association with tuberculosis of the lungs, there was no evidence of tuberculous deposit in the larynx, or the characteristic chronic laryngitis of phthisis. In the lungs was discovered a very interesting state of affairs. In each there was a large cavity, extending, in the right, from near the apex to the lower portion of the middle lobe, and to a corresponding point in the left. Crossing these cavities, the bronchial arteries, veins, and air tubes appeared like so many coarse cords and strings, illustrating in an admirable manner the resistance of the coats of the vessels to the ulcerative process, and explaining

the absence of hemorrhage in such cases of extensive disease.

CASE IV.—Mrs. B., of Titusville, Pa., æt. 36 years, came under my care March 5th, 1877, suffering from complete aphonia. She gave the following history: Her first trouble with voice began eighteen years ago, when she lost it totally for two days; afterwards was hoarse occasionally, each time after taking cold, until Nov. '76, when, without apparent cold, she lost her voice for two weeks. The fluctuations between aphonia and a good voice in this case were quite interesting to note. After this attack she awoke one morning with a clear strong voice, which remained good for two weeks. Again she suddenly lost it while attending to her stove in the morning. This attack continued four days, when she awoke in the morning with her voice completely restored. Two days after, while sweeping snow from the porch, her voice left her for twenty-four hours; was again good for two days, when she again lost it while doing some cooking, but it was restored when she awoke next morning. After this, aphonia continued most of the time until I saw her in March. She had her voice at intervals of one, two, and three days, or sometimes a week, and during the previous January and February for two weeks. Various other causes would affect her voice, such as sudden changes of temperature, going from a warm to a cold room, exposure to dust or steam, slight excitement on receiving company; as, if sitting quietly at home with family, or friends, and conversing in good voice, should a stranger happen to call, she would be unable to make a loud sound. Slight exertion, or strain, as in lifting a child, or going down and up stairs again, would take away the voice, only to be restored by rest, usually requiring a night's rest. She was married at 18, first child at twenty, since which time she has had more or less uterine trouble, ulceration of cervix, retroversion, and prolapsus. Her aphonia had been generally attributed to sympathy with her uterine trouble, but I could discover no such connection, as her voice was often the best when her uterine trouble was the worst, and *vice versa*. She was, however, referred to Dr. Dean for immediate attention to this difficulty. During the past three or four years, and particularly since the aphonia had been more constant, she had become much reduced in health and strength, and at times during these attacks would have considerable dyspnoea. Laryngoscopic examination revealed thickened

ing and infiltration of the ventricular bands, occluding the larynx so that only a border of the vocal cords could be distinctly seen on phonation. These were not, however, diseased except as they participated slightly in the general laryngeal hyperæmia. Other portions of the larynx were quite normal. Local treatment to the thickened bands was continued, until June 1st, at which time the thickening had become reduced, the larynx quite normal; voice clear, strong and unaffected by ordinary subjective changes, and she has continued well since.

CASE V.—Miss L. J., æt. 28 years; had hoarseness more or less for five years; aphonia for two months. She was referred to me by my friend Dr. W. S. Ely, of this city, July 7th, 1878. Five years before in June the patient had taken a severe cold which settled in the throat and produced a hoarseness that continued until next May. The following August she contracted another cold; was very hoarse at the time; had a hard cough; some shortness of breath; lost flesh and strength; and became so weak that she was confined to her bed for four weeks, and did not go out until the next April. After that she improved in health and voice, but remained very sensitive to damp air and unfavorable weather. In May, two months before I saw her, she took a more severe cold than usual, which produced complete aphonia, and some dysphonia on exertion. During the first two weeks she coughed violently and expectorated a greenish matter. Shortly after she ceased to expectorate, but a cough continued of a dry hacking character. She began again to run down, to lose appetite and strength, and was subject to nervous headaches. On laryngoscopic examination the ventricular bands were found much inflamed and thickened, their bases very broad, filling the ventricles, and pressing on the base of the vocal cords, preventing their vibration; the vocal cords and remaining portion of the larynx normal.

Since writing the above the following has come under my observation:

CASE VI.—Mrs. H., of East Rush, a stout well developed woman, æt. 40 years, referred to me by Dr. Sherwood of that place, April 22d, with hoarseness, pain and tenderness in the left side of throat. Last November she had what was supposed to be a mild attack of diphtheria, which left her throat very tender and irritable. In January she began to be hoarse. This hoarseness

was aggravated by the talking she had of necessity to do, being in a store; had a slight hacking and unsatisfactory cough, attended with but little expectoration. General health excellent. Examination of the larynx revealed the left ventricular bands to be markedly swollen and thickened, and the superficial portion ulcerated. In the left ary-epiglottic fold there was a large nodule or growth, in appearance a fibroid. The left vocal cord was engorged and very red from its close proximity to the diseased ventricular band, but was not directly involved. The remaining portions of the larynx were entirely normal. I am now (April 30) making daily applications of nitrate of silver (30 to 60 gr.- $\bar{3}$ j) and the ulceration and induration are disappearing quite rapidly, but an operation will, without doubt, be necessary for the removal of this growth.

These cases illustrate the importance of an accurate diagnosis in all cases of laryngeal affections, for, by mistaking the cause of the aphonia or hoarseness, other parts may be supposed to be the offenders, and subjected to uncalled for and often injurious treatment. Thus, in one of these cases in which the disease was attributed to a functional difficulty, the patient had been caused to inhale chlorine gas, strong fumes of ammonia and other irritating substances, to tease the supposed dormant muscles into activity. A careful laryngoscopic examination, under ordinary circumstances, cannot fail to reveal the cause of the difficulty, whereby the symptoms may be mistaken for functional aphonia, either direct or of a reflex character. Thus, of the cases cited above, three were supposed to be of that character, by the close resemblance to the symptoms exhibited by functional manifestations of disease. Two were ascribed to a directly local paralysis of the laryngeal muscles, and one attributed to a reflex cause, from the known sympathy which exists between the uterus and the larynx. The implication of the ventricular bands, in general laryngeal affections, producing hoarseness and sometimes aphonia, is alluded to by most writers on laryngeal diseases. Thus von Ziemssen, in describing the anatomical changes which take place in chronic laryngeal catarrh, says, "So also the swollen ventricular bands not only obliterate the ventricles of Morgagni and cover over a large part of the vocal cords, but also materially lessen the excursions of the latter during phonation." But the localization of such inflammatory thickening in the bands alone, unassociated with disease in other portions of

the larynx, as in these cases, is but occasionally mentioned, although it is of more frequent occurrence than one would be led to suppose from the literature of laryngology.

Dr. Duncan Gibb, however, calls separate attention to it as producing hoarseness, and cites, with illustrations, three cases that came under his observation. Tobold and Semeleder also make special mention of it, and cases are reported by Türck.

Prosser James gives an illustration and describes such a case, and Lennox Browne includes a cut in his admirable collection of colored plates of laryngeal diseases. A case very similar to Case III is reported by Marcet, except in that case the thickening of the ventricular bands resulted from abscess of the larynx, and was accompanied by paralysis of the cords.

A number of cases have come under my observation of more or less aphonia, from syphilitic ulceration and cicatricial contraction of the larynx, where the disease was confined mostly to the ventricular bands; but as there was some, and often considerable involvement of other parts, they cannot properly be mentioned here. I might also mention many minor cases of chronic hoarseness which I have found to be due to disease confined almost entirely to these bands. In many of these instances the ventricular bands will not appear, on a cursory inspection, to be the seat of any special trouble, for the reason that they do not project into the larynx, interfering with a clear view of the cords and parts below; but on a more detailed examination the base will be found to be thickened and greatly widened, obliterating the ventricles and pressing against the base of the vocal cords, as was found in Case V. They may also interfere with the free action of the cords in another manner, viz.: by pressing on the paraboloid fibers of the arytenoideus muscles which modify the tension of the cords.

In this manner can be explained the obscure cause of many cases of hoarseness, which has led Dr. Cohen to remark that "Hoarseness is sometimes present to a marked degree with very little evidence of disease in the cords themselves;" and "On the other hand the vocal cords may be deeply congested without producing a marked degree of hoarseness, and merely moderate hoarseness may ensue upon extensive ulceration of the tissues of the cords." These latter cases are to be explained by the lack of congestion or infiltration in the ventricular bands sufficient to interfere with the free vibration of the vocal cords.

TRI-STATE MEDICAL SOCIETY.

THE DRINK MUDDLE. By E. WILLIAMS, M. D., of Cincinnati, O.

In the restless and searching inquiries of this stirring age, the quest for the remote ancestor of our race—the primitive man—is the most absorbing. We no sooner find him than we ask with bated breath and palpitating interest, did he drink? If we can trace the drinking propensities of men to this first representative on earth, we have found a reasonably remote excuse for a bad habit. The meaning of “drink muddle” may not be clear to all present. By drink is not meant milk or water, for they never muddle anybody. Of course I mean alcoholic drink. But what is a muddle? It is a mixture of mental uncertainty and bodily shakiness closely allied to intoxication. Intoxication, very properly coming from a dead language, indicates the effect of a wound from a poisoned arrow, the poison being often of a serpentine origin. But not to put too fine a point on it, to be intoxicated is to be drunk. I drink—I drank—I am drunk—there we have it. Most of you know by experience or observation, or both, what a drink muddle is. These puzzling technicalities settled, let us dive at once into the history of drink. If in tracing back the devious windings of the tipling habit through all ages, somebody’s feelings should be lacerated, or some favorite *ism* tickled, or some shrinking pocket rudely touched, it makes no difference. We are out foraging in the interests of truth and humanity, and whether you scout or applaud, the historical bumper will not stop to “smile.” The occasion is too serious.

Mr. Pecksniff, who was not only a “bully of humility” but an oracle of wisdom, once opened his juicy mouth and said: “What are we but coaches? Some of us are slow coaches. Some of us are fast coaches. Our passions are the animals, and rampant animals, too. Virtue is the drag. We start from the mother’s arms and we run to the dust shovel.” Just before and immediately after this weighty utterance, Mr. Pecksniff took some refreshment and corked the bottle.

Now we propose to trace the wild career of the passion for

that bottle from which Mr. Pecksniff drew his inspiration. To observe the scientific order, let us begin at the foot of the ladder and interview the monkey on his tastes and promising aptitudes. He forms a conspicuous and significant exception to all other animals, in his natural love for drink. Darwin relates that many kinds of monkeys have a natural relish for tea, coffee and spirituous liquors, and that he has even seen them smoke tobacco. Other authorities say that the natives, in parts of Africa, capture the wild baboons by putting beer in their way. They imbibe freely and are captured when dead drunk. The next morning they are cross and snappish, hold their aching heads with both hands, refuse beer or wine when offered, but take kindly to lemonade. What a pregnant fact this is in the search for the missing link? The drink test is crucial. Let us take the same animal when he has been born into the non-caudal condition of progressive development.

Schweinfurth describes a wild tribe of people in Central Africa called Niam-Niam. When first discovered they were already addicted to intoxicating drink prepared from a common grain. Likewise in another district he describes the natives, as we would say, "on a bender," drinking "legye." Whether on an occasion of "high contracting parties" he does not say, but tells of their musical instruments and the jargon that "beggared all the raging elements" and made him wonder to see what music might come to. Both in Asia and Africa drinks made from barley and other grains, and from the juice of the palm tree, have been freely used from time immemorial, and the same crimes resulted as we see now among civilized peoples.

Dr. Livingstone says of the people of South Africa: "The wives work for food while the men spend their time in drinking 'malova,' or palm toddy, which is the bane of the country."

James Samuelson, in his "History of Drink," says: "Instances might be multiplied indefinitely to show that savage races have probably had intoxicating drinks peculiar to themselves before they were known to the civilized world."

At least most of these savage peoples had their own crude drinks, and were in palate and brain prepared for the fire-water of the pale-faced civilizer. The vice of drunkenness is savage in its nature and origin. In the earliest records and traditions of the Chinese, pictures of excesses in drink and their fearful consequences abound. In the "Announcement About Drunk-

eness," in the time of Confucius, it is stated: "Our people have been greatly disorganized and lost their virtue, which can be traced to their indulgence in spirits." "Spirits are what men will not do without. To prohibit them and secure total abstinence from them is beyond the power even of sages." This was probably written 3,000 years ago and shows that the Chinese then felt the need of total abstinence societies. They drank from the horn of the rhinoceros and all classes partook freely of spirits on occasions of hospitality and at religious observances. In India about the same period the excessive drinking habits were much the same. They had an idea that their God Indra was close fisted with his blessings, till like mortals, he felt rich under the softening effects of drink. So they offered him rich libations and prayed to him to drink freely.

Great efforts were made by different rulers to check the making and use of drink, but as still in our day with indifferent success. The English in India have always encouraged the distillation of spirits and drawn from it and the opium trade enormous revenues.

In central India at certain seasons, like our Mardi Gras, the people of all ranks resolve themselves into a committee of the whole to get drunk in a religious festival. They drink *bang*, crowd themselves and throw red powder on one another till they are literally painted red. In very ancient times the Hebrews held the same views in regard to wine and strong drinks as other oriental nations. Beverages made from the palm tree, grapes and other fruits were freely used, socially and in religious ceremonies. The biblical intelligence of this audience will supply the examples. I would only say of Noah's indiscretion after his long sea voyage, that perhaps, like many now, he was tired of water.

As to the New Testament, one would almost think, from the frequent references made to them by many good bibulous people, that the only redeeming traits in it were the conversion of water into wine by the Savior and Paul's touching advice to Timothy.

The picture writings in Egypt show that drunkenness was common there at a very early period. Wine was offered to their Gods, and some amusing accounts of their drinking customs are given in the writings of Alexis, as quoted by Samuelson. "Last evening you were drinking deep, so now your head aches, go to

sleep, take some boiled cabbage when you wake and there's an end of your head ache." They considered that divine and mellifluous vegetable an antidote to the poison of drink. In Grecian history wine and its influence can be traced back to the mythical period. In the deeds and misdeeds of the gods wine was a common inspiration.

Schliemann found among the relics of Troy, a great variety of drinking cups and many drinking customs of the present day come from the classic age when Horace raised his undying monument under the sweet guidance of the muses. According to Pliny, wine was known to the people of Rome from its foundation. Faithful records of the drunkenness and debauchery in all classes of society, in the grand old Roman Empire, dampen somewhat our admiration for the classic heroes.

Delirium tremens, "sleep agitated by furies," was common enough, and Pliny says: "this is what they call seizing the moments of life; whereas in reality, whilst other men lose the day that is gone before, the drinker has lost the day that is to come."

Physicians received a good share of censure for prescribing alcoholic drinks to please their patients and secure patronage, a thing not unheard of even at this day. Gibbon described the cowards that lounged about the forum to hear news and hold disputes; "who dissipated in extravagant gaming the miserable pittance of their wives and children and spent the hours of night in obscure taverns and brothels, in the indulgence of gross and vulgar sensuality." Samuelson, p. 100.

Now this sounds like some recent pictures of the Paris of America, on Sunday nights, as given in our daily papers. As the curse of drunkenness contributes so largely to the downfall of Rome, shall the wise and the patriotic of our land stand still and see the glory of the free and unconstrained liberty of drink, whilst it does its perfect work? The savage hordes of Germany were famous for their intemperance before they overran the surrounding countries. Their natural drink, then as now, was beer obtained from fermented barley and wheat.

But the wines of Italy were a luscious attraction for them and Tacitus describes them as spending much time in drinking and carousing. This abuse of drink became so great towards the middle ages, that temperance organizations were established to counteract its destructive tendency. Trink-geld in its now wider sense, has come down to us bearing witness to the universal

habits of drink among that people. The Germans in the Fatherland and all over the world are a beer drinking and beer worshipping people at this day. Come what may, they will have their *saus and braus*.

The story of Hans Breitmann, who had a barty, illustrates their unparalled achievements in this department of civilization.

“Hans Breitmann joined de Toorners,
De ladies coomed in to see,
Dey poot dem in de place for de gals.
All in der gallerie.
Dey ashk where ish der Breitmann?
Und dey tremble mit awe und fear,
Ven dey see him schwingen by de toes,
A drinken lager beer.”

This perpendicular drinking against gravity, the highest attainment yet reached in the gymnastics of civilization, would seem an up-hill business to less favored nations. The foaming beverage even tinges their philosophy:

“Some beobles runs de beautiful,
Some works philosophie,
Der Breitmann solfe de infinide,
Ash von eternal scrphee.”

But soberer habits and wiser counsels prevailed, at a later day, to bless that remarkable race.

In England, the Anglo-Saxons, the Danes and the Normans, all contributed their share to the peculiarities of the common drinking habits. Mead made from honey, and a kind of ale, were their usual drinks in early times. Their drinking tournaments with dancing, and rude music with songs and pompous recitals of personal exploits, are familiar to readers of early English history. Drink then, as now, was a great leveler, and their promiscuous fights, without distinctions of caste or waiting for formalities of introduction, were the natural and frequent results. Drunkenness has been the besetting sin of the English people from their earliest times to the present. Intemperance, in its most revolting forms, curses the laboring classes. With the aristocracy and affluent classes, there is a great deal of so-called moderate drinking. It may be read as it blossoms in their faces and buds in their lordships' noble toes. Inebriety in them, once common to a proverb, is now rare. They drink a great deal more than is good for their health and morals, but open

drunkenness among the aristocracy is now seldom witnessed. England's national reputation for drunkenness is due mainly to the fearful amount of the wildest dissipation and crime among their sailors and dock laborers, in the large seaport cities. Inebriety, once excused as a pardonable weakness, is now regarded with growing disfavor by all classes of society.

But let us come nearer home. In this "land of the free and home of the brave," what kind of a cue do we cut? I must say a very sorry one just now, at least in California. There was a good old chivalric time when everybody drank and there were no temperance fanatics to disturb the *placid* dreams of the drinker. Liquors were kept in nearly all private families, and hospitality meant drink first and last. Many men now living will be able to call up visions of log-rolling, musters, elections, gander-pullings, horse-races and other refined amusements, of fifty or less years ago. They were jolly, high old times of drunkenness and wild sports. Liquors were then cheap and to be had everywhere, and few people looked upon the habit with much repugnance.

I have given this brief summary of the history of drink, drawn mainly from Samuelson, in order to show the magnitude of the evil, and its early and extensive prevalence among all peoples, having its origin in the infancy of the race. Drink seems to have followed the advice of Horace Greeley and gone East, West, North, South, by land and by sea, and grown up with the country. Since the daybreak of history, alcoholic beverages and their abuse have been marked as a crimson path of vice, murder, outrage, violence and a fearful category of bodily and mental diseases. This habit so early learned, so universal in its range and so disastrous in its consequences, has been attributed to an inborn desire for stimulants, similar to the natural craving for food. The plain facts of history do not bear out this position. Dr. N. S. Davis, of Chicago, comes nearer the truth, perhaps, when he says, "that man was created with a susceptibility to feelings of anxiety, pain, sorrow, weariness, weakness, heat, cold, etc., and an intelligent desire to be relieved from all such unpleasant feelings." This desire prompts him to seek the means that bring relief. When he hits on that, which he seems to have done so early and so hard, and finds it very full of comfort, he passes the experience to another and so it spreads like wildfire. The prevalent use of opium, haschisch, tea, coffee and

tobacco have originated in the same way. They are not suggested by natural desire, but found out by lucky or unlucky accident. If the primitive baby was born with a direct thirst for the substantive thing called alcohol, and feels woeful till it gets it, and woefuller afterwards, then nature made a slight mistake in the chemistry of her preparations. We can easily settle this question by interviewing the first newly arrived baby or calf we meet. Put the foaming beer into his bottle instead of the sincere milk of the mother or the cow, and see how he likes it. Children certainly do not show any natural desire for drink, but they are apt enough to learn it. The thirst for intoxicating drinks is artificial. The appetite is created by the habit and grows with indulgence into an all-absorbing passion. Men differ very much in their natural powers of resisting its fascinations and consequences. But we are *coaches*, all of us, just the same. Some with phlegmatic nature and no hereditary predisposition, may run as slow coaches, through a long lifetime of moderate drinking, and never upset or run off the track. But another perhaps more generous by nature and weaker by inheritance—having the fatal drink appetite fastened upon him by his disolute ancestors—or with the tendency to insanity, epilepsy and other nervous disorders—will burst out into a blaze of frenzy, even in his earliest cups, and his wild passions will drag him through the world, spreading terror and desolation on every side, till they wreck their victim in premature and disgraceful death. These are the rampant horses and the fast coaches. Only last week I saw a runaway of this sort. The man was zig-zagging the sidewalk on Elm street, shouting lustily—*railroad! railroad!* evidently enjoying his high prerogative of clearing the track. Of course he soon ditched his train. Now no man knows by natural gift whether he is a fast or slow coach. If he is curious to find out, let him begin by firing up his horses with whisky. But even at this early stage of the business, his couriers may dash away with him. He finds by trial what he is, and that his horses are not safe, but it is too late.

In the great movement of reform in the use of alcohol, initiated in the United States within this century and now agitating England, Germany, Sweden, and nearly every other civilized nation, it is of prime importance to start out with a correct idea of the vastness of the evil and the fatal grasp it has upon com-

munities. Thus only can we realize the magnitude of the undertaking to regenerate men of depraved appetites and alcoholic constitutions, to habits of sobriety and decency. The sober truths of history, and every day observations, are the only plea needed for this philanthropic enterprise. Overstatement is not required and hardly possible. Look at a life picture of the crime, misery and disease directly and unmistakably linked with the use and abuse of drinks, and it is not easy to be too "flowery on the subject." It is a life picture of death and a ghostly future. Efforts to stay the scourge, against the social habits, prejudices and enormous interests involved, appear like an insane endeavor to butt one's brains out against the skies! *There is an arena large enough for the highest philanthropic tumbling among the great reformers.* I have a great admiration for the "*temperance fanatics.*" There are few men with heart, capacity and foresight equal to such a stupendous work. All honor to the prescience that sees the rock of danger, and as the ship of state reels and staggers under the fatal load of liquor, lies, fraud, perjury and unscrupulous partisan demagoguery, shouts *breakers ahead!!* and sends the flashing signals of alarm high and blazing in the air! Would to God that the world were full of such patriots! The uppermost spirits of the day are quacks! Quacks in medicine—quacks in politics—quacks in religion—quacks in science—quacks in everything!! Taking the kingdoms of the earth by violence, their brazen effrontery would storm the kingdom of heaven, and failing to humbug or intimidate Peter, they would throw him a sop of bribery! Dr. Beecher once said: "God is long suffering, and his mercy endureth forever! But God is not a fool. He can not be mocked." Men may placard tree boxes and board fences—yes, even the vault of the skies—with their lying handbills and their newspaper sensations and advertisements, but God can see round and over and through them all and He will reward all men according to their works. Men *with men*, may whip the devil round a stump with bewildering success, but to a higher eye the stumps and subterfuges of life are all transparent. In such a crisis, human struggles may seem foolish and mortal prayers but empty breath, but rest assured God, in some way, at some time and somewhere, will bring these workers of iniquity to grief! So let us have hope in the future and fight the devil with heavenly fire!

The question naturally arises if maternal impressions possess the power of determining changes in the unborn, at what stage are they most operative, and does their action cease as pregnancy advances?

We believe these influences to be more powerful during the earlier weeks and months of pregnancy, otherwise nature would be compelled to undo what she had already accomplished, thus moving in direct opposition to her established laws of order and progression.

Dr. Tyler Smith says that "The whole human fabric is the result of *fission* an innumerable number of times repeated, of the single fertilized embryo cell."

In the plastic state, with a rapid aggregation of cells, though the connection with the mother might not be very intimate, how reasonable that through undue disturbance of the presiding centres, changes of supply and demand might be determined. Later the embryo, as it were, attaining individuality and solidity, and becoming better prepared to resist arbitrary changes.

An interesting fact, and one difficult to account for, is exhibited in the resemblance borne the father of the first offspring, by the following progeny, the latter being by a different father. This is commonly observed in the inferior animals; indeed, it is well recognized, and accepted by farmers and stock raisers. We are prepared to accept the same theory of mental impressions through the nervous system of the mother in explanation of these results.

We believe that abnormalities of the pregnant state occur, which can by no means be ascribed to the effect of maternal impressions, for instance the bearing of twins, double monsters, and hereditary diseases. Double monsters are shown by microscopical examination to originate in a single ovum. Dr. Dunster says "If we assume that a double primitive trace is laid down on a single ovum, or that a single primitive trace splits by fission, more or less completely into two, we can easily account for the formation of double monsters, for first the sex must be the same, and second the union will be homologous."

We sometimes find abnormalities of the foetus from a knotted condition or an encircling of the cord around one extremity. I have within the last few days received a letter from Dr. S. S. Thorn, of Toledo, who gives the following account of a case in point: "I have now in my office a four months foetus, cast off

because of impeded circulation through the cord. The cord surrounds the left thigh, in the lower part of the middle third, the loop being a single knot. At delivery there was considerable constriction at this part, the thigh and leg being much reduced in size below the constricting band. Amputation was evidently under way." This is a fair illustration of the effect of a purely mechanical cause. We are justified in regarding such cases as extremely exceptional, and believe that when amputations occur as a result of maternal impressions, it is by an absorption of the part, the process being determined by the forces regulating nutrition and residing in the vital fluid.

All who contend that amputations occur solely as a result of constrictions, readily admit that the amputated extremities are scarcely if ever found on delivery, and believe that after amputation they are absorbed. I would ask if these forces are capable of accomplishing absorption after amputation, why may not the same forces operate prior to such an event; in fact why should the constriction be by any means necessary? Going behind all this, however, will any assert that these bands or adhesions must depend upon a local diseased condition, and may they not rather have a prime cause in disturbances of the nervous centres, which unquestionably preside over the whole process of conception and pregnancy?

Could we show beyond cavil that the nervous forces operate upon the unborn in the grade of animals, next to men, their applicability to a higher order of life, would convey some force.

Sacred writ teaches that the Patriarch Jacob ignorantly yet successfully availed himself of the device of erecting wattles before his watering troughs, the rods being alternately white and dark. Here the sheep during conception and pregnancy drank, with the result of producing a large per cent of ring-streaked and speckled progeny, thus depleting old Laban's flocks.

It is contended by sportsmen that the bitch, in order to produce a sagacious and ready progeny, should be hunted during pregnancy, and I can give it as my experience that among such offspring I have found the best hunters and retrievers.

I hold in my hand a specimen kindly furnished me by Dr. J. H. Letcher, which he denominates the elephant pig. Examination discloses the skin, head, trunk and ears of the elephant. It possesses the following history: It was pigged some months ago, and brought to Dr. Letcher, who, on inquiry, learned that about

that and you will recover your eyesight. Failing to do it, you will soon be shut up in total and hopeless darkness. If he believes you and has enough will power left to *take the medicine*, he will get well. The chances are he will go away sorrowful and drink his eyes and probably his brains out. This is but one of the many affections of the eye, produced directly or indirectly by drink, and they are all more common in habitual drinkers than in violent drunkards. All authors are in accord, on the great frequency of organic diseases of the liver, kidneys, heart and lungs in alcoholic subjects and their sad effects on individual and race longevity. But the noblest and subtlest organ, the brain, with its matchless functions and capacities, how surely and fatally it suffers, both in drinkers and in drunkards.

Acute inflammation of the brain and its coverings are often directly traceable to drink. But the slow and insidious development of softening of the brain and spinal cord and other organic and incurable lesions, resulting in apoplexy, paralysis, epilepsy, imbecility, insanity, is as sure to come as effect follows cause.

Dr. Henry Maudsley in his *Responsibility in Mental Diseases*, says: "while we must admit hereditary influence to be the most powerful factor in the causation of insanity, there can be no doubt that intemperance stands next to it in the list of efficient causes: it acts not only as a frequent exciting cause, where there is hereditary predisposition, but as an originating cause of cerebral and mental degeneracy, as a producer of the disease *de novo*."

If all the hereditary causes of insanity were cut off and if the disease were thus stamped out for a time, it would as surely soon be created anew by intemperance and other excesses."

Further on the same graphic writer says: If men took careful thought of the best use which they could make of their bodies, they would probably never take alcohol, except as they would take a dose of medicine in order to serve some special purpose. It is idle to say that there is any real necessity for persons who are in good health to indulge in any kind of alcoholic liquor. At the best it is an indulgence which is unnecessary; at the worst it is a vice, which occasions infinite misery, sin, crime, madness and disease.

Short of the patient and undeniable ills which it is admitted on all hands to produce, it is at the bottom of manifold mischiefs that are never brought directly home to it.

How much ill work would not be done, how much good work

would be better done, but for its baneful inspiration! Each act of crime, each suicide, each outbreak of madness, each disease occasioned by it, means an infinite amount of suffering endured and inflicted, before matters have reached that climax."

Such are the pregnant utterances of an Englishman and one of the best writers on insanity in the world. Now whether we call the drunkard a "sinner" or "a patient," makes no difference in the effects of his habits upon himself, family or society. When it come however to the practical question, what will you do with the inebriate and how will you control or suppress the evil of drink and its consequences, it makes a radical difference. The treatment of the drunkard and the means of preventing drunkenness, would be moral and legal in the one case and medical and legal in the other. In the one, the inebriate personally would be sent to the prison and in the other to the hospital. Another, but very small class of inebriates, would with common consent be confined in a lunatic asylum, as dipsomaniacs. It will not do to say that every drunkard is a lunatic or a diseased person, because in his lucid intervals of freedom from alcohol, he often shows no evidences of either.

Their artful pretense of want of power to control themselves, is but a palliation. Dr. Bucknill refers to a college acquaintance at Rugby, who quit drinking for a year, on a wager. On the evening of the last day, he received his reward, turned again to his cups and drank himself into the grave. The confirmed inebriate soon becomes thoroughly diseased or insane, or both, but except when he shows other evidences of insanity, than the alleged ungovernable thirst for drink, he is a drunken sinner and that is the least you can say of him. In his sober moments and senses, he seeks temptation, intending to fall and knowing the effects it will have upon him. He is then neither diseased nor insane, but vicious. With few exceptions insane persons are not aware that they are crazy. But the morally bad man is quite aware of his vice, and unless hardened in it, regards it with remorse. He may experience regret that he is sick, but can not feel remorse. The drunkard tipples because he like the taste and effects of the drink, wilfully, as he commits any other crime.

True, in time both bodily and mental disease comes upon him, bringing him to an early grave or incurable lunacy. But he was responsible for the habit which brought them. Whether the taste for drink is natural or acquired by habit, makes little

difference in the responsibility and none in the effects. Whether the magnet be natural or induced, it makes a point of dipping to the pole.

When the coil of evil associations fastens itself around the young man, the fatal fascination for drink takes possession of him like an evil spirit; as it is, the magnet does not point more faithfully to the polar star, than he turns blindly to his cups. I have very little faith in the final cure or reformation of a habitual drunkard. I say this after a long professional experience. The many boasted and boosted inebriate asylums, established on the voluntary principle and disease theory, have proved a failure. They are usually luxurious places where voluntary inebriates voluntarily go "to pick up" for a time. In spite of the good people who establish these good homes for the lovely and good inebriates, where temperance songs and exhortations to turn to nobler and better ways and quit grog are the chief influences relied on, these "facile, sensual, irresolute liars, devoid of the rudiments of conscience, self control or true affections," turn again to their evil and accursed habits, with greater desperation than before.

If the drunkard can not be charmed from his destroyer by temperance songs or "coddled" into a sober, good citizen in reformatories, public or private, what shall be done with him? The doctors know what to do with him after he is dead, and on a pinch, the chemist might distill him, but as a live elephant where and how shall you house him?

1. I would take away from him the control of his property and preserve it for his suffering wife and children.

2. I would deprive him of the right of suffrage.

3. I would have every man found drunk on the streets or anywhere else, arrested like any other criminal and put at work in forced confinement.

4. I would enforce severe and certain penalties against any one who might sell spirits, in any shape, to a habitual drunkard or an intoxicated person, or a minor.

5. By education and all other means, I would put the ban of public disfavor on liquor drinking and the traffic in all its forms.

These few and earnest regulations, approved, as they ought to be, by every right thinking and right feeling person, and en-

forced, as they then might be, would immediately and greatly mitigate the nuisance.

Besides these means, I would advocate a restrictive license law of some practicable kind, making it more and more stringent as the public advance in intelligence and virtue, so that it might be enforced.

I have no time to discuss plans, but only principles. By all possible means I would try to create a public sentiment inimical to the fearful abuses of the trade in liquors, wholesale and retail. I would encourage temperance movements of all kinds, especially among children and young men, thus preventing the renewal of the rich crop of drunkards now being harvested at so much expense, sorrow, suffering and crime. I would abate the common, low tippling saloons now cursing large cities at every corner, and often by dozens on every square, by a rigid license law. I would take away every possible temptation to drink that could be removed with propriety and for the public good. I would discourage what Dickens calls "perpendicular drinking," after the prevalent method at the bars of hotels and other places at all hours of the day. If people who will drink alcohol would only take it after meals and never between or before meals, it would be vastly less injurious.

I would encourage the substitution of light, pure wines, beer and cider, and especially tea and coffee, for the strong alcoholic drinks, by public education and discriminating legislation. I would strenuously advocate the legal closing of all drinking resorts, at least as early as 10 o'clock in the evening, and not allow them opened before 7 or 8 o'clock in the morning. For the sake of common decency and public order, I would urge that all saloons be closed on Sundays and election days. To compensate for these evil and common resorts of the poor and working people, I would advise all churches and benevolent associations to open reading and amusement rooms where innocent games may be allowed, and where good tea, coffee, lemonade and other harmless drinks might be had at very low rates. Above all, I would throw open to them all the libraries, museums, picture galleries, and other innocent and profitable places of resort, on Sundays. In short, I would depend more on preventing drunkenness than on reforming drunkards.

I would try to stir up the honest, decent, patriotic people of all religions and politics, to help break the fatal debauching alli-

ance between the powerful "drink interest" and the State and general governments.

But what are the duties of the physician in this burning question? Some will say at once, we have nothing to do with the evils coming from the *abuse* of alcohol. The *right use* of it is a social custom that does no harm. But pray, what is the right use of it, and where does that end and the other begin? No son of Esculapius, however wise and learned, can answer with any certainty. Right use in one is abuse in another, and no safe boundary can be fixed. The abuse and its evils are enormous and incalculable. The right use is an uncertain quantity of fractional denomination, followed by a long and loud interrogation point. Well, the medicinal use of alcohol is right and proper at all events. But what are its medicinal uses? The rigid and more exact methods of accurate observation, chemical analysis, physiological experiment and pathological study, have narrowed the limits of its therapeutical indications very greatly. The highly dangerous and unscientific method of prescribing beer or wine or whisky, without strict regard to quantity and composition, or time of continuance, should no longer be tolerated. Then the direction so often voluntarily given, or artfully obtained by the patient, to take as much as you feel you need, leaving to the discretion of the patient the most dangerous article ever used in medicine, and one that creates a morbid want and steals away the last grain of discretion, is highly reprehensible. The extremely uncertain amount of alcohol taken, its frequency, time of continuance, and the susceptibility of your patient to its poisonous influence, are all unknown quantities, and science looks on such insane and criminal folly perpetrated in her holy name, and cries shame!

Thousands of cases of hopeless drunkenness can be traced to the loose way in which physicians so flippantly prescribe drink. The same is true of opium eating. There is a crying need of reform and reformers—of professional fanatics—of crusaders even—in our profession. In the meeting of the International Medical Congress at Philadelphia in 1876, Dr. E. M. Hunt, of New Jersey, read an elaborate paper on "Alcohol as a Food and Medicine." His conclusions, justified by the scientific sentiment of the profession, are as follows:

"1. Alcohol is not shown to have a definite food value by

any of the usual methods of chemical analysis or physiological investigation.

2. Its use as a medicine is chiefly that of a cardiac stimulant and often admits of substitution.

3. As a medicine it is not well fitted for self-prescription by the laity, and the medical profession is not accountable for such administration or for the enormous evils arising therefrom.

4. The purity of alcoholic liquors is in general not so well assured as that of articles used for medicine should be. The various mixtures, when used as medicine, should have definite and known composition, and should not be interchanged promiscuously."

I pray you, gentlemen, have these facts printed in large letters and hang them over your sheep-skins; read them each day, and repeat each time the benediction—"God be merciful to me, a sinner." Remember the weaknesses of men and their infernal ingenuity in finding pretexts for the gratification of their appetite for drink. Why, drinkers are as clever in finding excuses for drinking as the boys arraigned before their school teacher for smoking. One smoked for juvenile asthma—another for toothache—another for cramp colic—another for water brash—and so on to the last and biggest boy of all. Well, my brave boy, what do you smoke for? After a moment's painful hesitation, the category of diseases being about exhausted, he shouted—I smoke for corns, sir!

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

HOT WATER IN UTERINE HEMORRHAGE. By W. R. McKINZIE,
M. D., of Chester, Ill.

Although my experience with hot water as an anti-hemorrhagic is somewhat limited, I am convinced that it should hold a prominent position in the category of hæmostatics. Time being limited, I will embody in this brief report the simple facts connected with one case in which hot water injections acted "like a charm" in controlling the gravest case of metrorrhagia which occurred in my entire experience.

It is that of Mrs. T., age 31, married, who has been thrice delivered at term, twice of healthy, living children, the third still-born. From that time on she aborted; once, twice and even oftener every year until last spring about the first of May, when she aborted in about the second month of gestation, and became a victim of persistent uterine hemorrhage, notwithstanding the faithful use of everything at our command for controlling it, such as ergot in full doses, gallic acid, cold applications over womb, astringent vaginal injections, tonics and rest.

On examination, having found sub-involution and slight anteversion of the womb, I resorted to intrauterine application of Churchill's tincture of iodine, together with the above described internal treatment.

For a time I thought my efforts would be attended with success, not only in controlling the hemorrhage, but also in restoring the uterus to its normal condition, and thereby remove the cause of those frequent abortions, which seemed to be habitual, were that possible. By the way, I think "habitual abortion" is a misnomer, since there is always a diseased condition of the womb, acting as a cause, which disease might be the result of the first abortion. In the course of a few weeks, the case was so much improved that I considered it safe to discontinue the local treatment for a week, at least, having occasion to be absent for that length of time. The patient did comparatively well for about ten days, when the hemorrhage returned with more violence than before, whereupon I resorted to the same treatment

again, with glycerite of tannin alternated with the iodine. The patient again improved so much as to be able to sit up and walk around, but, as before, the improvement was followed by an attack worse than at any previous period, making it necessary for me to visit her about a dozen times in the twenty-four hours, so alarming was the hemorrhage. Used sponge-tent and tampon—the latter several times; then applied Monsel's solution of the sub-sulphate of iron, half and even full strength, to the internal surface of the womb, and failed.

Having already tried in vain the entire anti-hemorrhagic treatment at our command, I concluded to try the "cooking process," as it is called—the injection of hot water—an agent in which, prior to that time, I had no faith whatever, so far as its effect in controlling hemorrhage is concerned, although as an anti-phlogistic, I have had the most gratifying results from its use. In chronic diseases of the uterus and its appendages, I think the injection of hot water, when properly administered, is equal, if not superior, to any other remedial agent that can be employed, since most of these diseases are the result of a loss of tone in the venous circulation throughout the pelvis. Heat, by reflex action, causes the capillaries of the vagina to contract, the tonic effect of which is extended to the coats of the larger vessels, whose calibre in turn becomes lessened, and thus diminish the congestion.

In using the hot water, I placed the patient in the usual position for examination with Sims' speculum, and by means of a Davidson's syringe, injected water about 100° F. into the neck of the womb, holding the nozzle within an inch of it, lest I might too forcibly dilate the uterus and allow water to escape into the peritoneal cavity. The hemorrhage was almost instantly arrested, and remained so for several hours, which was not the case for some time previous.

I continued the daily use of hot water injections for some two weeks, when the patient completely recovered. At present she is enjoying better health than for years, and the cervix looks perfectly healthy.

My experience in the use of hot water in uterine hemorrhage is limited, and, of course, I claim nothing new, but simply repeat this case with a view of corroborating what has already been claimed by many others within the last few years, namely :

That in the use of hot water as a hæmostatic a great discovery has been made.

Of the use of hot water in post partem hemorrhage, Playfair says,—“of late, intra-uterine injections of warm water, at a temperature of from 110° to 120° F. have been highly recommended as a powerful means of arresting post partem hemorrhage, often proving effectual when all other treatment has failed. The number of published cases in which it has proved of great value is now considerable.

The present master of the Rotunda, Dr. Lombe Atthill, has recorded sixteen cases in which it checked hemorrhage at once, in many of which ergot, ice, and other means had failed. He speaks of it as especially useful in those troublesome cases in which the uterus alternately relaxes and hardens, and resists all our efforts to produce permanent contraction. My own experience of this treatment is too limited to justify my giving a decided opinion on its merits; but I have tried it in two or three cases, and in them the result certainly exceeded my expectations. I think it cannot be doubted that we have in these warm irrigations a valuable addition to our methods of treating uterine hemorrhage.”

SATURDAY, APRIL 17th, 1880.

ST. LOUIS MEDICAL SOCIETY.

DR. PREWITT—Some two weeks ago, I saw a little child thirteen months old who had a tumor upon the buttock of the right side. The mother said that it had been growing for six weeks only. The tumor was larger than my fist, soft and somewhat more elastic than a *nævus*, and had not exactly the feel of a fatty tumor, and the rapid growth, as indicated by the history, led me to think it might possibly be malignant, but the good condition of the child contraindicated that, and I aspirated it and got only some venous blood. I concluded the mother was wrong in her history of the case; that it had been growing longer, but that she had not observed it, and I concluded that in spite of the fact that I could not empty it of blood, that it must be a sub-cutaneous *nævus*, and even with the uncertain history which she gave me, I thought it was growing and determined to remove it. I suspected it would be rather a bloody operation for a young child, but the father was anxious to have it done. On making my incisions I found it was a sub-cutaneous *nævus* undergoing cystic degeneration. Some of the cysts were filled with a clear fluid, and some of them with a turbid fluid, while a portion of them were dilated vessels which we expect to find in *nævi*. The tumor was situated just above the tuberosity of the ischium and I dissected it from off the surface of the gluteus muscle. The child is nearly well.

DR. BERNAYS — Did the tumor extend over towards the coccyx?

DR. PREWITT—No, rather forwards and downwards. A tumor of that kind is not always easy of diagnosis, and I certainly felt a good deal of doubt about the diagnosis. The characteristic of a *nævus* is, it has a fluid feel; it is capable of being emptied of its blood and has a tendency to slowly fill again. But I was unable to empty this. Its character well shows why I could not empty it, as it was undergoing cystic degeneration, and the cysts could not be emptied, of course. This is not an uncommon result in these cases.

THE PRESIDENT then announced that Dr. Gregory would read the paper of the evening.

Tumor of Sciatic Nerve—Fracture of Infra-Maxillary in a Child Two Years Old—Removal of the Ramus of the Jaw—Case of Hermaphroditism—Ligature of the Carotid Artery—Two Successful Cases of Ovariectomy.

DR. GREGORY said—I am of the opinion that there are too many papers, just as there are too many medical journals, and therefore I have not written a paper; but, if the Society will listen, I will relate a few extraordinary cases which occurred in my practice lately:

Some weeks ago I gave to my friend, Dr. Bernays, a tumor which I had removed from the sciatic nerve of a patient who had suffered for several years with neuralgia of the sciatic nerve. The tumor was palpable from time to time. I became satisfied from the symptomatology that it was connected with the sciatic nerve. After trying external applications, the lady consented to have the tumor removed. I enucleated it from the sciatic nerve. It was a tumor of about the size of a hen's egg. The lady recovered and is herself again. I think I pulled on the nerve considerably in cutting it out, because I had the nerve completely beyond the surface of the body; had it well exposed and enucleated it very carefully.

I am treating at this time a fracture of the jaw in a child less than two years old. The child has had the whooping cough constantly, cries when I am present so that I have never been able until to-day to discover whether the jaw was in position or not, but to-day I discovered that everything was all right. The fracture was the result of direct violence. It was the first instance of the kind that I had ever seen. I used an ordinary cup-shaped splint made of binder's board, and applied Barton's jaw bandage—a most desirable and ingenious application of the roller, and when properly applied is unquestionably the most secure bandage that was ever applied. I often wonder that a man with the ingenuity of Barton could at an early period of his life have deserted his post, because to-day his name stands first on the list of American surgeons for his exceeding ingenuity in the particular department which he adopted, and many things which he introduced, and many things which he taught, surgery is proud of to-day.

A few days ago, I removed the ramus of the jaw for a tumor

in a child less than eight years old; I removed it without opening the mouth. [The specimen was presented to the Society.] I began the incision just half an inch in front of the ear over the zygoma, and carried it out to the angle of the jaw and forward to the median line. I went right down to the ramus, and then with a pusher, an instrument very much like an oyster-knife, I pushed the periosteum off the bone until I was enabled to divide the bone as you see there, in front of the ramus. After dividing the bone and pushing the periosteum well off the ramus, I pulled the fragment down and pushed the temporal muscle off the coronoid process, to which it is attached, and then pushed the pterygoid muscles off from the inner portion of the jaw and removed the bone without a particle of the soft parts. The mucous membrane was intact.

I saw to-day another case of which I have never seen a counterpart. A person, nineteen years of age, presented himself at my office—a handsome person with the configuration of a man, and having a beard. Upon examination, I found he had a perfect vagina and female urethra; the labia, internal and external, perfectly formed, and a diminutive organ corresponding precisely to the anatomy and occupying the site of the clitoris and projecting out beyond, so that I supposed it was about the size of my thumb. It was erectile when I examined it, and I think it was about as long as my thumb. The glans penis was perfectly formed but the meatus was wanting, and the corpus cavernosum was wanting. There was a notch corresponding with the meatus, and upon pressing this back under the pubis, the urethra was easily made out. There was nothing like a uterus, and the vagina terminated about three inches from the surface in a seeming cul-de-sac, so that the finger in the rectum could easily feel the catheter in the bladder, showing that there was no uterus between the finger and the instrument. There was no bloody flux—no menstruation. No development of the breast; no testis, that could be found. He has precisely the feelings of a man, and has experienced the orgasm occasionally, and has been guilty of self-pollution. He is anxious to get married, and the question was very pertinently asked whether he proposed marrying a man or a woman. I told him I could not advise him to get married. He asked me if I thought there was any danger of his transmitting his peculiarity to his progeny, and I told him I thought there was some danger, because I really thought it

was my duty to dissuade him, and it was a question whether he could not be much more readily converted into a woman than into a man, because the removal of this rudimentary penis would leave him, so far as appearances go, a perfect female. The labia were perfect, and it is remarkable that whilst he has precisely the general configuration of a male, with local appearance of a female, he is a handsome man, and has a beard and a voice like a male.

DR. DUDLEY—Any evidence of testicles in the abdomen?

DR. GREGORY—None that I could discover. The case is still under observation, and any gentleman who wishes to see him or her on Tuesday or Thursday, at 11 o'clock, may do so by visiting the Sisters' Hospital. He had a great aversion to being exposed, but he consented to go before the class with a handkerchief over his face.

DR. MUDD—What operation do you propose?

DR. GREGORY—Well, the only operation that has occurred to me as practicable is to dissect up the loose integument that corresponds to the urethra on either side and attach it to the present urethra. Now I know that the border of the present urethra must be necessarily very narrow, and the fact that a union of flaps might very likely fail if I were simply to dissect them up, would still leave the difficulty of keeping open the old urethra, and I thought the best way would be to dissect up the integuments from the borders toward the center, leaving a sufficient connection in the center to insure the nutrition of the flap, and to turn the border over on it in the median line, leaving the integumentary surface to correspond with the prepuce of the urethra. This was the only thing I thought of. If he insists upon an operation, something of that kind may be attempted, but I am certain it would be much easier to turn him into a woman than into a man.

I have seen within the last two weeks a case of traumatic aneurism, involving the carotid artery, evidently an artero-venous aneurism. There is a peculiarity which attaches to these artero-venous aneurisms which it is very hard to characterize. In this case, I ligated the carotid artery well down in the root of the neck below the hyoid crossing, but the man's occupation was such that I thought it was dangerous for him to go back to the

country. A peculiar purring—a venous purring has returned. Perhaps there is some small vessel which is in some way or other connected with this pulsation of the artery. This peculiar unpleasant sound, which I think is connected with the vein, is still present notwithstanding the obliteration of the carotid artery.

Finally, I will report two cases of ovarian tumor, both of which are getting well. They are the only two cases of consecutive recovery that have come under my observation. In one of the patients the tumor was very large, weighing eighty pounds. In the other the cyst held two buckets full of fluid, and every line of the cyst was adherent. The adhesions were broken with the finger and occasionally clipped with the scissors. The patient who had a tumor of eighty pounds never had a temperature above 100°. She is now without fever, and it is nearly two weeks since the operation. I will say these cases were operated upon under all the usual antiseptic precautions. I am not certainly prepared to say that the success resulted from these precautions, but I believe that in the present feeling of surgery, it is best to make use of them. Carbolic acid has been kept in the room ever since the operation.

DR. BORCK—How strong a solution did you use?

DR. GREGORY—A 20 per cent. solution.

DR. PORTER—In the case in which you ligated the carotid artery how long did the purring stop?

DR. GREGORY—Two or three days.

DR. PORTER—Is it as loud now as before?

DR. GREGORY—Well, I believe it is. It is a very mysterious thing, and very unpleasant to the patient. As long as he is up he does not pay any attention to it. The slightest pressure destroys it, and for that reason I suggested the wearing of a scarf, the pressure of which destroys the sound.

DR. BERNAYS—With regard to the tumor which Dr. Gregory gave me, I found it to be a myxoma which had undergone degeneration. No other case of ovarian tumor weighing eighty pounds has ever been removed successfully in this State. In fact there have, perhaps, been only a dozen cases that have been operated on in the world, where the tumor was so large. I remember one case of a tumor weighing ninety-six pounds,

which was successfully operated upon. I have operated on three cases, and the result has been encouraging. It has been supposed that the climate of the Mississippi Valley was unfavorable to these operations. I do not think that the use of antiseptics will explain the success of my cases. Bacteria will live under a spray though not in a 20 per cent solution.

Floating Cartilages.

DR. MCPHEETERS related the following cases of floating cartilage in the knee:

Both of these cases were in females. In one of these cases the lady has been subject to rheumatism to no very marked extent. The other has suffered to a marked degree. This lady complained to me for some time of a pain in her knee. Then she complained that when she came down steps or when she was walking the street, that the knee would give away, and that she would fall, and this was accompanied by a sickening pain. When I ascertained these facts I examined the knee, and I found a small floating cartilage well marked, which of course explained the fact of her falling and tripping as she did occasionally. Now the treatment laid down in the books as far as I have examined them, is either to confine these cartilages so that they will not interfere with walking, by a bandage, or to remove them entirely. Now, as it is impossible to simply bandage the knee to fix the cartilage without interfering with the flexibility of the joint and locomotion, and, on the other hand, as the operation of removing it is attended with some danger, I wish to inquire whether there is not some more favorable method?

DR. BOROK—What kind of bandage did you use?

DR. MCPHEETERS—Well, several different kinds; first, the rubber.

DR. GREGORY—Dr. McPheeters has described the symptoms very graphically. I would suggest to the Doctor that he might use a piece of adhesive plaster, and cut a hole in the adhesive plaster to receive the cartilage, and make it fast around the limb. It is said that if held in this position for a time it will disappear. In the cases I have operated on I have forced the body up (generally the patient knows how to do it) and then I cut square down upon it. I have my splints and my plaster all ready, and put on a plaster cast at once, so that there is no movement

from the time of the completion of the operation until the time when the inflammatory danger is passed. I have never had any complication, and I have operated twice on the same individual. Once when I was operating on him the cartilage slipped away and I had to wait several hours before it re-appeared.

DR. MCPHEETERS—I thought of the adhesive plaster, but there is a difficulty in making it adhere in a very flexible part of the body, and I thought it would be liable to the same objection as the bandage—the difficulty of keeping it *in situ*.

DR. PREWITT—That it is dangerous to open any joint is well known, but under antiseptic measures the results are sometimes excellent. In speaking of ovariectomy, I suspect that the success which Dr. Gregory had in these cases was fully due to antiseptic measures. Mr. Keith speaks very highly of it. The German surgeons, as a rule, are enthusiastic about it. Subcutaneous wounds rarely ever give rise to suppuration. In simple fractures for example, we have a great subcutaneous wound, and yet the patient's life is very rarely imperiled; but the moment that there is a wound communicating with the fracture, the case assumes a much more serious aspect. If, in any way, we can obtain the conditions of a subcutaneous wound in all cases so as to keep out from the wound the germs or whatever it may be which gives rise to putrefaction, it will certainly be an immense advance. I must confess that I should hesitate very much to cut down upon the knee-joint and fix this cartilaginous body and remove it under antiseptic conditions; I must confess that I should hesitate very much, because I would believe that in doing so I would imperil my patient's life. I should much prefer to remove the cartilaginous body subcutaneously.

DR. BERNAYS said he considered Dr. Gregory's method of perfect rest much superior to the antiseptic method.

Habitual Dislocation of the Left Ulnar Nerve.

DR. LUTZ—Some weeks ago, a case came under my observation which was unique to me, and which I have called habitual dislocation of the ulnar nerve. The patient was a man about twenty-eight years old, of robust frame and a laborer in an axle grease factory. It is his business to dip the grease with a bucket from a vessel to a receptacle situated on a higher plane. He found that quite frequently during the performance of his work

the little and ring finger of his left hand suddenly became stiff and numb, and that these symptoms would disappear when he rubbed his elbow against his body. On examining his elbow, immediately after one of these accidents, he found a cord out of place, which easily slipped back, however. In my presence he very readily produced the dislocation, by going through the motions requisite to perform his work, and it was found that the ulnar nerve slipped forward over the internal condyle of the humerus, and that the little and ring finger were semi-flexed; the nerve was readily pushed back into its place; it seemed somewhat thickened. The patient does not remember having received an injury to his elbow.

Cases of Hernia.

DR. STEVENS—As extraordinary cases seem to be in order, I will mention a case with which Dr. Gregory is familiar. I was called upon by Dr. Frazer, Sr., to take charge of a case of strangulated inguinal hernia. It had previously been in the hands of a physician who had evidently mistaken the nature of the tumor, and had applied leeches. I found the integument thickened and inflamed from the leech bites. Drs. Frazer and Gregory assisted me in operating. On cutting through the integument we found it was a case of enterocele and epiplocele. We found but little difficulty in reducing the bowel, but it was impossible to reduce the mass of omentum. It was enormously swollen and surcharged with blood. We hesitated and discussed the circumstances, and finally determined upon amputating the mass. A plug of omentum filled the canal; over this we closed the wound as best we could. We found the separated portion to consist of at least the lower fourth of the omentum. No unfavorable symptoms followed till several days had passed, when we discovered a fluctuating mass in the cavity of the abdomen. About ten days had elapsed when I found my patient had passed into the chamber full a quart of yellow pus; this was by the bowel—per anum. The individual made a good recovery, and it promises a radical and permanent cure of his hernia. You will remember the discussions in this Society in regard to the dangers incident to cutting into the peritoneal cavity, and I present this as a case of interest in relation to that subject.

DR. GREGORY—As Dr. Stevens has referred to his case, he will doubtless remember the case of a colored man, a case of

seemingly strangulated hernia. Just before the doctor proceeded to make this incision I asked him to let me try a plan of rupturing the inguinal canal forcibly to see if I could not reduce it. I got permission and I reduced part of the tumor; the remaining portion we could not move. I introduced my thumb into the internal abdominal ring, pushed it well back in the direction of the inguinal canal, and succeeded in reducing part of the tumor. The remaining portion was adherent omentum and as we could not get it back the doctor thought he should operate. He cut it off and ligated it. That man afterwards had an incarcerated rupture and sent for me in the night and I succeeded in reducing it. I felt that I had succeeded in reducing the intestine; but for the adhesive state of the omentum I might have been successful in reducing the whole tumor.

Report of the Delegation of the St. Louis Medical Society to the Medical Association of the State of Missouri. By F. J. Lutz, M. D.,

MR. CHAIRMAN:—From the fact that I had been chosen one of the Secretaries of the Association at Carthage, and might therefore be expected to know something of the minutiae of the work, it was intimated to me before our return to St. Louis, that I would be called upon to make a report to the Society. I have therefore taken a few notes of the proceedings to which I will occasionally refer in my remarks.

The hospitality of the City of Carthage was really royal, and everything was done to make our stay agreeable. The Association was called to order promptly at four o'clock on the afternoon of May 18th. After a prayer had been offered by the Rev. Dr. G. H. Williamson, of Carthage, Mayor Caffie was introduced, and in a dignified and self possessed manner read a very eloquent address to the Association, to which Dr. Maughes, the President, on the part of the Association responded. The next order of business was the election of officers. Dr. Green, of St. Louis, nominated Dr. Allen, of Liberty, Mo., who was unanimously elected. According to custom, a committee was then appointed by the President to report to the Association.

the names of the remaining officers. While this committee was out, the committee on Scientific Communications, with Dr. Matthews as Chairman, was appointed, none of the original members of that Committee being present. The committee on nominations, through its chairman, Dr. Tefft, of Springfield, then reported the following names: For Vice Presidents—Drs. T. U. Flanner, of Springfield, T. B. Loyd, L. I. Matthews of Carthage, A. B. Sloan and A. W. Smith. For Recording Secretaries—A. J. Steele and F. J. Lutz of St. Louis. Corresponding Secretary, Dr. Mudd. At this point the new President, Dr. Allen, was escorted to the chair amid enthusiastic applause. Dr. Allen was warmly welcomed by Dr. Maughs who, taking his hand, said there was no man to whose care as a presiding officer he could turn over the affairs of the Society with more pleasure. Then turning to the Association, he introduced Dr. Allen as the President of the Association for the ensuing year.

Dr. Allen, in a few well chosen and eloquent words, thanked the Association for the honor conferred upon him, which he regarded as the highest that could be conferred on an American citizen. A telegram of greeting was then sent by the Association to the Medical Society of Illinois, which met at Belleville.

On motion Drs. Halley and Sloan, of Kansas City, were appointed a committee to draft resolutions on the death of Dr. Taylor, and Drs. Mudd and Lutz were assigned to report on the death of Dr. Kennard, the resolutions to be printed in the forthcoming transactions.

Of the Committee on Publication, the only member present was Dr. A. J. Steele, who reported that one hundred and eighty copies of the proceedings of the Association for the preceding year had been printed and distributed among the members of the Association, and the leading journals of the land. I then offered a resolution that the committee on Publications be instructed to have the proceedings printed within two months after adjournment. The reason for this is obvious to all members who belonged to the Association last year. It will be remembered that the publication of the proceedings was delayed last year until December. I also took occasion to doubt the wisdom which limited the reading of the proceedings to the members for the year, instead of giving them a wider circulation through some medical journal. Men who give to an Association their efforts

do not wish to have them buried in that way. As it is, the proceedings will be read by the eighty members who were present, and about ten more, who may subsequently send in their dues, whereas, if the printing were given to a large journal, the proceedings would be read by 2,500 or 3,000 physicians. This latter view, however, did not prevail, but the motion was adopted.

Dr. Steele then offered a resolution to the effect that the committee be instructed not to approach any medical journal for a bid to publish the transactions.

[Dr. RUMBOLD here interrupted Dr. Lutz and asked: Who offered this resolution?

Dr. LUTZ—Dr. Steele.

Dr. RUMBOLD—Why did he not instruct the committee not to approach Rumbold? It was he alone whom he referred to. Laughter.]

Although this was championed by quite a number of the members present, and although a number of attempts were made to substitute other resolutions, such as allowing members to publish their papers in journals of their own choice, the resolution was lost.

Dr. King, of Sedalia, to prevent any medical publisher from getting the proceedings, offered a resolution, which was carried, instructing the Committee on Publication to require bond and security from the publisher who might secure the printing of the proceedings, that he would have them ready for delivery within two months from the time the copy was delivered into his hands, and would not publish or permit to be published, any of the matter contained in the proceedings until they had been printed, bound and delivered for distribution. This resolution produced a very erroneous impression upon the members present, and upon the press, as is shown by the following comment which appeared in *The Banner*, a local newspaper: "It seems that a medical journal in St. Louis has heretofore been awarded the contract for printing the proceedings as the lowest bidder, and that the able, scientific papers contributed by members of the profession, were first run through the columns of the journal as original matter, and the publication of the proceedings held back until that had been accomplished. This course enabled them to underbid any other publisher and compelled the Society to await their pleasure." The Doctor's resolution was adopted almost unanimously.

Another important resolution was then taken up, namely, the proposed change of time for electing officers. The discussion which ensued demonstrated that there would be many difficulties encountered by adopting the proposed changes, and a committee consisting of three ex-Presidents was chosen to report. This committee reported next day and suggested that the election of officers be held at the last session of the meeting. Their report was adopted.

The Association then adjourned to meet at 8 o'clock P. M., to listen to the address of the retiring President, Dr. Maughs. At the close of the address it was, on motion, ordered printed in the transactions.

On the second day the scientific papers were in order. Dr. A. J. Steele, of St. Louis, then read a very interesting report of a case of deformity of the wrist, for the treatment of which he showed a splint of his own devising, and showed the members present an improved method of taking plaster of Paris casts of the limbs and trunk.

The Treasurer's report was then read, and a resolution was passed relieving him from all liability in the loss which the Association incurred by the failure of the Mastin Bank, where the funds of the Association had been deposited by him in good faith.

Dr. Johnson, of Kansas City, reported a case of dislocation of the elbow of both bones of the forearm outwardly. Similar cases were reported by a number of gentlemen.

This was followed by perhaps the most interesting paper of the whole session by Dr. Engelmann, who read a paper on the dangers of uterine manipulations and examinations. He related a number of cases from the practice of well-known physicians of this Society and elsewhere, demonstrating the possibility of the most simple operation and manipulation being followed by the most serious sequelæ.

Dr. Halley, of Kansas City, reported two cases of facial neuralgia which he had relieved by operation.

Dr. Mudd read a very interesting paper on lithotomy and lithopraxy and reported some interesting experiments concerning the relative danger of cutting and tearing the prostate gland, and made a number of experiments on the cadaver. He also made some interesting remarks on a case of trephining, based

upon our knowledge of the localization of the various centers in the brain.

Dr. Allen read a paper on the relation of mind to matter, a paper my friend Dr. Hughes would probably call a metaphysico-psychological one.

After this the Society did me the honor to listen to a paper on operations about the peritoneum, in which I took occasion to show the falsity of the view that one can do almost any kind of injury to the peritoneum with impunity. I also reported a cyst of the left ovary which I had successfully removed.

The next paper was by Dr. Tefft, in which he undertook to prove that the gases arising from sewers and cesspools, etc., are not dangerous by themselves, but require in all cases a specific something superadded to them to be the source of infection, and he illustrated his argument by citing cases in which men had lived in the foulest atmosphere without any danger. He especially referred to the case of men in the Greene County jail who had lived in a limited number of cubic feet of air, the apartment receiving its ventilation from the privy, and yet none were sick.

In the discussion which followed Dr. Green called special attention to the propriety of referring this matter to the Committee of the Board of Health of the State of Missouri. This committee also reported to the effect that in future they advise that the first efforts made be for the simplest kind of arrangements. Whenever the Legislature is approached for appropriations for hygienic or other objects they met with anything but encouraging results.

A telegram of greeting in response to our own was received from the Illinois State Medical Society.

A vote was then taken as to the next place of meeting, Mexico being selected on a vote of twenty-six against twenty-five for Macon City.

The crowning session of the Association was held in Regan's Hall on the evening of the second day. Tables for more than two hundred persons had been prepared, and were beautifully decorated with flowers, and loaded with good things for the inner man. The caterer deserves commendation for the feast he provided and which was thoroughly enjoyed. The guests began assembling at 8 P. M., and before half-past eight the hall was well filled by members of the Association and by a large number of the ladies and gentlemen of Carthage. The hall was

brilliantly lighted, and when all were seated at the tables, and the time had come to enter upon the discharge of the duties of the occasion, a finer picture of life, beauty, intelligence, culture, and the means of prolonging the period of their usefulness, would be difficult to find.

The next morning Dr. Green read a paper which was well received and very highly spoken of by all the members present, on the treatment of conjunctivitis. One noteworthy merit of this paper was that it was a plain, practical resumé of the methods at our command to allay conjunctival inflammation.

The last paper was by the President of the State University, Dr. Laws, on "Medical Education." I think this report on medical education has been made for a number of years, and with due deference to the learned gentleman who read it, it may be said it was an interesting paper in regard to his school, but I thought in my own mind that the Association was not the place for such a paper, for it was really a plea for the Medical Department of the State University.

Committees were then appointed for the next year, as follows:

Credentials—Drs. Torrey, Evans and Mudd.

Scientific Communications—Drs. Latimar, Norris and French.

Progress of Medicine—Drs. Tefft, Hill, Gerard, Moss, Dalton and King.

Progress of Surgery—Drs. Johnson, Geiger and Lutz. Drs. Hearnese and Torrey to report on railroad surgery.

Ethics—Drs. Green, Gordon and Fulkerson.

Publication—Drs. Engelmann, Moses and Michel.

The following gentlemen were appointed delegates to the American Medical Association: Drs. Dysart, Schauffler, Gillet, Hearnese, Maughs, Evans, Geiger, Norris, Torrey, Wright, Steele and Means.

A paper by Dr. Alleyne on the progress of medicine, and one by Dr. Todd, of St. Louis, on the dry treatment of otorrhœa, were read by their titles and referred to the Committee on Publication.

I think the Association was a success in many respects. Some of the papers were very instructive, and the members took a great interest in the proceedings. In regard to numbers the Association was not such a success. The distance and the inconvenience of getting there was no doubt the cause of preventing many from attending, who otherwise would.

At present it is the opinion that the Association should perform missionary work—go about to different portions of the State, and promote the establishment of local medical associations. But I understand this necessity is rapidly passing away, as almost every county in Missouri has its medical society, or the physicians at least belong to a district medical society, and in the near future the Association will no doubt select a centrally located and easily accessible city for its permanent place of meeting.

The Association closed with the passage of a resolution of thanks to the citizens of Carthage, the ladies especially, and to the Reception Committee, for the generous treatment and genuine hospitality it had received, to the railroads for the courtesy of reduced fare, and to the press for the publication of the proceedings.

DR. BARRET said, after Dr. Lutz had concluded his remarks: There seems to have been some misunderstanding at the State Association in regard to the delay that occurred in the publication of the proceedings last year. I wish simply to call attention to that fact, and to state that I think it would be proper for the Chairman of the Committee, since he was not present at the Association, to defend the Committee's action, to state the reasons why that report was not gotten out earlier.

DR. WM. PORTER—I rise, with the privilege of the house. The reason that one, at least, the Chairman of the committee, did not go to Carthage was because he was disgusted with the manner in which the publishing of the transactions was conducted. I had other reasons that were sufficient, but this alone would have prevented me from going. I will simply say that the Committee did not publish the proceedings of the State Association earlier because some members of the Association withdrew their papers and refused to give them to the Committee, and this action tied the hands of the Committee, and rendered its efforts fruitless. The Committee had, by a vote of four to one, decided to give the printing to the ST. LOUIS MEDICAL AND SURGICAL JOURNAL. By this means the volume would have been out in a month from the time that the copy was ready. (This was the contract.) Besides, it had secured a promise that the same should be published in the columns of the JOURNAL, giving an additional circulation of 2,200 more than the 180

copies which were published. This was within a few dollars of the lowest offer. Some of those who had read papers refused to hand in their papers. The Committee was threatened and insulted because a few deemed this an advantage to THE MEDICAL AND SURGICAL JOURNAL, rather than to another. I am told that much correspondence was had and every influence used to embarrass the procedure. If the papers had been in my hands they would have been published as ordered. Being in the hands of the Secretary of the Association, our hands were tied, and finally we were compelled to publish 180 copies, which have so far been unnoticed. I protest against the back handed action which endorses this mode of coercion, and want to fasten the illegitimate offspring where it belongs.

Editorial.

THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI.

We have delayed the issue of the present number of the JOURNAL to publish a report—a little out of its order—made by Dr. F. J. Lutz to the St. Louis Medical Society, on the meeting of this Association, which took place at Carthage May 18, 19 and 20, 1880.

Many of our readers will no doubt be puzzled in their attempts to fully understand the “whys and wherefores” of the resolution to prevent medical journals from publishing the Association’s proceedings.

Last year we offered, as stated by the Chairman of Publication, to publish the State proceedings in the JOURNAL, at a pecuniary sacrifice to ourselves. We done this in the interest of the Society and of the profession of the State, trusting that in the “long run” it would be beneficial to the JOURNAL. Instead of receiving, what we confidently expected, well merited appreciation, we received scorn and abuse, but this came from a few who took advantage of their position, and threatened a rupture of the State Association if their unjust course was not sustained. By these few our motives were intentionally and persistently perverted, and through them, others were made to misunderstand our efforts.

As the profession of the State is interested in this matter, we will state that our crime was the proposition to publish the State proceedings in the JOURNAL and in book form for the same price for which the book alone could be published.

Every reader will at once ask, why their unwillingness to accept this generous offer? Why the animosity of this few at the JOURNAL for making this offer? The answer is, they fancied that through this publication, the JOURNAL would be benefited to the injury of a concern in which they were interested. Even if it were true that their concern would be injured, which is indeed very doubtful, is this course manly?

The dislike of a few men to this journal should not make the Association unjust to itself nor check the meritorious efforts of a medical journal to place its proceedings before the professional world, to the benefit of *every one*, but especially to that of the Association. When men eminent in their profession spend weeks and months in preparing papers, and then read them before a society, is it not a credit to the author and the Society if the most popular and the largest circulated medical journal in the West desires to publish it? Is it any crime in the editor of that journal to make honorable effort to get such papers for publication?

We have been berated by our friends for not being present at the Association to make our offer in open session. To these we say, that while we had other reasons to prevent our attendance, coming upon us suddenly, we still felt like the Chairman on Publication, Dr. Porter, in this matter.

We will close by saying, that if we thought that it was as much to our pecuniary benefit to publish the proceedings of the Association *next year*, as we know it will be to the interest of every reader of a paper in the Association to have them published, we would say, "On to Mexico."

THE ILLINOIS STATE MEDICAL SOCIETY.

We had the pleasure to meet with this learned body of medical gentlemen, and, barring some papers that were too long—although very valuable contributions to medical literature—to be read in full, were much interested by the proceedings. Commencing with our next issue, we will publish quite a full synopsis of the three days' proceedings, taken for the JOURNAL by Dr. A. H. Ohmann-Dumesnil.

Clinical Reports from Private Practice.

FIBROID TUMOR. By A. V. BANES, M. D., of St. Joseph, Mo.

The history of the case here given, came under my notice May 4th, 1879. The patient had been under the care of several physicians, but had only been subjected to internal and external treatment. Mrs K.—, æt. 49 years, of spare habit, very anæmic, had not enjoyed good health for some time previous. She occasionally suffered with severe pains in the hypogastrium and early in 1877 I noticed a hard mass, the size of a large orange, in that region. At the time I saw her, the tumor was as large as a five months' pregnant uterus, was movable, not tender even upon hard pressure. She had been delicately reared, but meeting with reverses during the war, had been subjected to many hardships.

I diagnosed the case as a fibroid or cystic fibroid tumor. After explaining the desperate risks she would have to encounter, she unhesitatingly decided in favor of an operation. As she lived several miles in the country and knowing I could not give her the proper attention that distance from the city, I prepared a room in my own house, with antiseptic precautions, and appointed May 20th, as the date for the operation. She was put upon a generous diet and her system saturated with iron and quinine. I operated at the time stated, with the assistance of several of our best physicians and in the presence of a number of medical students.

The incision was made from the umbilicus to the pubis, a strong carbolic spray being thrown over the line of incision. Upon examination, after the cavity was opened, we found a hard, round, partially cystic fibroid tumor attached to the fundus of the uterus and weighing eighteen pounds.

After a hasty consultation, it was agreed to remove the tumor en masse; it was accordingly lifted from the cavity, dissected carefully near its base, a portion of the uterine tissue being involved. The vessels were promptly ligated as we went along. After a reasonable time had elapsed to see if hemorrhage occurred, the cavity was closed with nine interrupted sutures, the peritoneum not being included. Adhesive straps and a broad flannel bandage were used to support the abdomen.

She reacted nicely, but two hours later, unfavorable symptoms set in and she died almost immediately of nervous shock and exhaustion.

I cite this case, feeling that it is the duty of physicians and surgeons to report unfavorable, as well as successful cases.

POISONED BY IODOFORM. By F. B. TIFFANY, M. D., of Kansas City, Mo.

Mrs. K. S., age 29, vest-maker, consulted me February 15, 1879, respecting her hearing. Examination revealed the following conditions: Tympani intact, but in a hypertrophied condition, with non-suppurative catarrh of the middle ear; patient was also suffering from posterior nasal catarrh and severe pain in the occipital and cervical region with diurnal vertigo and tinnitus aurium. Treatment:

R Potass Brom.....	3iv.
Colombo Tinct.....	3jss.
Aqua Distil. ad.....	3vj.

M. Sig. Desert spoonful *ter die*.

Chlorate of potash, by posterior nasal douche; inflation of tympanic cavity, by means of the Eustachian catheter.

This treatment was continued for several days with good results, the headache and vertigo entirely disappearing, with slight improvement of hearing.

February 27, 1879, applied to the tympana, per external meatus, a small portion of the following mixture: Iodoform, grs. v., et Gelati Petroli, 3ij.

February 28, patient returned complaining of pain and itching of the ears; said the medicine I applied the day previous was the cause, as she experienced like trouble from the same medicine (knowing it by its odor) which Dr. Williams, of Cincinnati, applied in the form of a yellow powder when under his treatment, about two years previous. I told her I did not think it could be the medicine, as its effect was of a soothing nature and not irritant (it being an anodyne), and I frequently used it in much larger quantity without bad results; indeed, I had never known, read nor heard of its having such an effect; besides, I had only used a fraction of a grain; but she insisted that it was the cause of the trouble, as she had nearly lost her life by its use before. I discontinued its use and syringed the meati with tar-soap water, washing away any remaining portion of the salve.

March 1, lobes of ears were inflamed and swollen with an aqueous discharge which excoriated the skin wherever it touched.

March 2, she complained of severe pain, it being so great she could not sleep, but walked the floor the entire night. Syringed the ears with soapsuds; gave more brom. potass. and chloral.

March 3, excoriation extended to the face and neck with an erysipelatous swelling; pain was very severe.

March 5, discharge very profuse, erysipelas extended over the face and neck and down Eustachian tube; hyperemia of the submaxillary glands. Gave large doses of iron and quinia, and applied cranberry poultice.

March 6, swelling extended over the entire face, closing both eyes. March 8, submaxillary glands badly swollen with indication of suppuration; erysipelas still extending to the chest.

March 9, symptoms much worse than on the previous day; the cranberry poultice rather aggravated than otherwise, for which I substituted a mask of cosmoline, which gave immediate relief, checking the burning pain like magic.

March 11, patient quite easy, swelling much reduced; continued the use of the cosmoline, with lead lotion for the external meatus for a few days longer. Patient entirely recovered, with hearing slightly improved. Temperature did not go above $99\frac{1}{4}^{\circ}$ during the whole time.

In sustaining the opinion that this was a case of idiosyncrasy, I would state that Mrs. S. cannot eat eggs in any form whatever without experiencing the greatest degree of nausea.

Book Reviews.

A **TEXT BOOK OF PHYSIOLOGY.** By M. FOSTER, M. A., M. D., F. R. S. Third Edition, Revised. [London: MacMillan & Co. 1879.]

A full criticism of this book, in its different departments, would be scarcely less than a report on the recent progress of physiology, and require more time and space than can be given here. The author begins with the amoeba as illustrating the simplest manifestation of vital property, showing this structureless mass to be—1st, contractile; 2d, irritable; 3d, assimilative; 4th, metabolic and secretory; 5th, respiratory; 6th, reproductive. Speaking of the 'higher' animals he says: "We learn from morphological studies they may be regarded as groups of amoebæ peculiarly associated together. All the physiological phenomena of the higher animals are similarly the results of these fundamental qualities of protoplasm peculiarly associated together. The dominant principle of this association is the physiological division of labor corresponding to the morphological differentiation of structure." "In the evolution of living beings through past times, it has come about that in the higher animals (and plants) certain groups of the constituent amoebiform units or cells have, in company with change of structure, been set apart for the manifestation of certain only of the fundamental properties of protoplasm, to the exclusion of the other properties."

These sentences indicate the position of the author on one of the most interesting physiological questions of the day. With

regard to localizing the functions of the brain: "Although much has been written and many experiments performed in reference to the various parts of the brain, the views which have thereby been worked out are, for the most part, neither satisfactory nor consistent. Indeed, the proper method to study the brain is to trace out a cerebral operation along its chain of events, rather than seek to attach definable functions to the cerebral anatomical components."

In speaking of alteration in the pupil, the phrase "nervous mechanism of the pupil" is used, which is a little ambiguous, as it is certainly the nervous mechanism of the *iris* that produces these attractions.

A few features of this excellent book, which attract the attention of the reader at first sight, are—

(1) The use of the metric system. This is as inevitable as it is desirable. It is the only scientific system of weights and measures in the world, and the sooner it is met in medical literature the sooner will the profession give it that attention necessary to its proper understanding and use.

(2) The omission of comparative physiology. This is a matter interesting in itself and profitable, to a certain extent, in its relation to the physiology of man. But it certainly widens and extends the discussion of the subject, and our author seems to have decided that the benefits to be derived from this source were scarcely equal to the disadvantages resulting from too great volume.

(3) The introduction of numerous figures illustrating the nervous and vascular mechanisms, and other subjects. Several of these diagrams, as those illustrating the contractility of muscle and blood pressure, occupy an entire page. Some of these might be considered a little superfluous, but the author, in his preface, says: "My previous decision not to introduce figures of instruments has been so generally disapproved, that I have waived my own judgment and inserted a number of illustrations which, I trust, will be found to assist the reader."

(4) The addition of an appendix of fifty pages on the "Chemical Basis of the Animal Body." In this appendix we have a very full and complete account of the proximate and elementary principles. This department of physiological study has assumed greater importance of late, since the more recent discoveries have gone far to establish the theory that all vital phenomena can be traced to molecular change and molecular arrangement.

Dr. Foster's Text Book of Physiology must take its proper place in the front rank of works on this subject. It is altogether an admirable book. Unincumbered by superfluities, clear and systematic in arrangement, comprehensive in detail, simple though scientific in style, it is suitable alike to the expert and the novice.

H. C. FAIRBROTHER.

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Original Contributions.

ARTICLE XVIII.

ON THE EARLY DIAGNOSIS OF STONE IN THE BLADDER. By
W. HUTSON FORD, M. D., of St. Louis.

PART I.

In a very important address, delivered in 1878 by Sir Henry Thompson, before the Midland Medical Society at Birmingham, after defining the class of cases to which the operation of lithotomy is applicable, the distinguished speaker used the following language: "The only certainty of success lies in getting the stone to operate on when it is small; and, success being absolute then, it follows, as a matter of necessity, *that the diagnosis of stone in the bladder and of its size, is a matter of the highest importance.* Granting me this, and the unrivalled success of lithotomy for small stones, already proved, it logically follows that the operation of lithotomy must in future be rejected for all stones which are of a moderate size." [For a consideration of the relative position of the two operations, I beg leave to refer to an article of mine, entitled, "The Province of Lithotripsy," published in the ST. LOUIS MEDICAL AND SURGICAL JOURNAL for May, 1878.]

Thompson further states that he has come to the conclusion

that stone in the bladder, like many other maladies, is an *exterminable* one. "The plague," he says, "in Europe, is now a matter of history;—small-pox, an anachronism, without right or title to existence, showing itself only because some people are foolish or ignorant." Cholera must equally become subject to medical control. Lithotrity must be the future operation for stone in the adult. "Find a man's stone," says he, "while it is small, and you are certain to save him." By following this hint, we shall arrive one day at the end in view, viz., the *extirpation of stone in the adult*, so that, as he writes a year or two later, the rising generation of medical men will see the day when lithotomy for adults will disappear, or at least become one of the *rarest* of operations."

In sympathy, as it seems, with the foregoing remarks, quoted from Thompson, Holmes observes: "No delay is admissible in cases of stone. When the symptoms become more accurately known to the public, and the necessity of seeking competent advice at an early period is generally recognized, stones will be disposed of when of small size by lithotrity, lithotomy in the adult will become an even rarer operation than at present, and stone will be only rarely a cause of death." ("Surgery, its Principle and Practice," p. 814.)

Lithotrity in the future, except in its modification by Bigelow, a procedure as yet, however promising, distinctly upon trial, will be restricted to stones less than an inch and a half in diameter, unless the calculus is very soft. Some stones, even of this size, composed of uric acid, or of phosphates with an oxalate of lime nucleus, or of oxalate of lime alone, in rare instances, cannot be safely crushed. But even the hardest stones may be crushed while smaller than one inch in diameter, and we must bear in mind that every stone has once been small—once in its history therefore, removable with comparatively little risk to life. Every large stone is a witness of lost opportunity, and its presence beclouds the reputation of the medical man, who, knowingly or misunderstandingly, has allowed it to grow, or testifies to the obstinacy, timidity or ignorance of the patient and his friends. The early recognition of calculus, with a view towards its immediate removal, has not received, says Thompson, its full share of consideration from the profession in England; and the same proposition may be affirmed with regard to his country, with at least equal confidence. Notwithstanding

the devotion of many operators of the Eastern States, lithotripsy has been sadly neglected in America, and, indeed, it is not at all unusual for practitioners, knowing of the existence of a stone, either to allow the patient to refrain from submitting himself to operation, or to encourage him to do so, until by long sojourn and the consequent increased size of the calculus and gravity of the symptoms, *lithotomy*, the only operation in general contemplated either by family physicians or professed surgeons, is no longer to be avoided, with all its risks.

In the address alluded to above, Thompson takes the rather novel, but undoubtedly correct position, of insisting that this early diagnosis of calculus in the bladder, upon which the safety of the patient hangs to so great an extent, should be established by the *family physician*, and not necessarily by a surgeon at all. "It may be said," he observes, "that when the physician suspects stone in the bladder, he can always send him to the surgeon to be sounded." "But," he asks, "why this division of labor? Why should not physicians equally send their patients to the surgeon to be stethoscoped, since it is a mechanical process, like sounding for stone, designed to ascertain the condition of internal parts? Why should there be one diagnostician for the outside of the body, and one for the inside?" Is it not altogether best, that the diagnosis of stone, which eventually includes striking it with a metallic rod, be made out, at least with comparative accuracy by the man who is in continual contact with the patient, and most likely to be informed of the earliest symptom in his capacity of attending physician? His functions need not be operative, but should certainly be diagnostic, so that the patient may enjoy the great advantages of timely surgical treatment.

There can be no doubt of the judiciousness of this view, and I have several times known of instances where early operation has been secured by the attentive sagacity of the family physician, who has himself made the diagnosis, but if medical men are to be expected to sound the bladder for stone, a good knowledge of the main indications for so doing, and of the proper methods of sounding, is indispensable. The physician must learn to sound the bladder, just as he learns to sound the uterus, or to practice auscultation and percussion, or any other method of physical diagnosis. There is no reason whatsoever why sounding for

stone should be the only diagnostic process, hardly ever practiced except by professional surgeons.

It is plain, that in order to make an appropriate and timely use of the sound, a clear knowledge of the symptomatology of the conditions of the urinary organs, where a stone might be present, is highly desirable in every medical man who, in the capacity of attendant or consultant is entrusted with the care of families. With a view to set forth in a distinct light, and in as practical a way as possible, the indications for sounding and the differential diagnosis of calculus, I have ventured, in the following pages, to enlarge somewhat upon Thompson's valuable suggestions. If stone in the adult and lithotomy for large stones are to become things of the past, and so many needless dangers to human life thus averted, these desirable ends can only be attained through the watchful care of practitioners in general, who, by sounding the note of warning in time, will forestall conditions that no surgical skill can prevent from leading on to a disastrous issue in a large number of cases.

The early history of stone will depend upon its origin, for a calculus found in the bladder may have been formed around a small stone which had dropped from the kidney, or may be the result of phosphatic or other deposition, in part of the constituents of the urine around foreign bodies introduced from without, or as the result of a concretion of vesical mucus and phosphatic matters in sulci or pouches of the bladder, as happens not infrequently after the operation for vesico-vaginal fistula. Multiple calculi again may be due to the concretion, in numerous small masses, of crystalline deposits of the urine, precipitated both within the kidney and the bladder. Calcareous concretions also producing most of the symptoms and effects of a movable calculus, are not uncommonly met with adhering in large quantity to the walls of the bladder after operation. Stones of renal or vesical origin may be further increased by deposits formed around them in the prostatic, membranous, or even penile urethra—and certain concretions analogous to true calculus may originate in the prostate, occupying the secretory cavities of the gland and becoming voluminous and hard by the progressive deposition of urinary salts.

Calculi may thus be designated as of renal, vesical or prostatic origin. Those of renal origin, are in nearly every case

dependent upon a constitutional dyscrasia; but in the bladder, although the causes first giving rise to the concretion in the kidney continues to act, thereby augmenting its size, the kindling of chronic cystitis, and the associated decomposition of the urine, sooner or later causes a deposition of phosphate around the mass, which may alternate with deposits of other kinds. This almost surely occurs around foreign substances lodged in the bladder, urethra, or even behind the corona-glandis, under the prepuce, in cases of phimosis. I have seen formations of this kind numbering twenty or thirty, and varying in size from a bird shot to a small bean or coffee grain, lodged in the balano-preputial sulcus, where circumcision in an adult revealed them, having been deposited from the stagnant urine pent up around the glands, in consequence of a narrow preputial orifice.

The great majority, nineteen out of twenty, of those stones which have a constitutional origin, viz., which are not formed wholly by decomposition of the urine in the kidney, bladder or urethra, but by the deposition of material abnormally present in the blood, are composed of uric acid. In about five per cent of such stones due to vitiated nutrition we meet with one composed either of oxalate of lime, phosphate of lime, of cystine, or very rarely xanthine. About three-fifths of all stones, says Thompson, are of constitutional origin, the other two-fifths comprising stones due to ammoniacal decomposition of the urine, and incrustation of foreign bodies or of the vesical and *urethral* walls.

As uric acid stones comprise nearly 60 per cent of all calculi, the early symptoms will in the majority of cases bear a direct relation to the natural history of uric acid in the economy. Uric acid is now admitted to be formed in the liver as a stage in the production of urea. An abnormal amount of urea or of uric acid in the urine, necessarily signifies undue hepatic activity. At the same time the failure of uric acid to assume the normal form of urea, a transformation which would appear to be accomplished by a kind of fermentative process, leads us to suppose that hepatic action is not only redundant, but simultaneously perverted. The coloring matter of the urine is derived from splenic and hepatic action upon worn out blood corpuscles, and perhaps upon bile reabsorbed from the intestine, and its quantity seems to depend upon the activity of the hepatic functions. At least, after febrile attacks, or bilious derangements, etc., when the liver has been temporarily affected, renewed and increased action

attendant upon returning health, is always accompanied with increased amount of urea in the urine and with a high coloration.

Now this high coloration, in the *lithic acid diathesis* which we are considering, is very apt to excite attention, especially in adults. Though quite frequent in children, it is not so common with them as with older subjects. Very often in these cases, a clear history of ancestral gout, gravel or stone can be obtained. A copious deposit of urates is to be observed upon the bottom and sides of the utensil into which the urine is passed. If a portion of freshly voided urine be allowed to settle in a conical wine glass, and the deposit examined microscopically, the well known rhomboidal, orange red, single or grouped crystals of uric acid will be seen intermixed usually with urates. The agglomerations of individual crystals may be large enough to be felt between the fingers, or seen by the unaided eye. Some of them may be as large as a grain of sand, of gravel, or even shot. This is what is called "the gravel." Marked irritation accompanies the passage of urine of this kind. Uric acid is exceedingly difficult of solution, practically insoluble in pure water, and held in solution in the urine in small proportion only by the action of its temperature and the salts it contains.

When separated from the blood by the kidney it tends at once to assume the solid crystalline form, and does so very promptly, while still within the urinary passages if in redundant quantity. The deposition of these fine crystals which are very hard and sharp, as in the similar case of oxalate of lime, produces early and marked irritability of the urinary passages, evinced by frequent micturition and ardor urinæ. Occasionally the patient ceases to pass these concretions, but after a time voids them with much pain and vesical tenesmus in unusual quantity, perhaps with some blood, in what is called a "fit of the gravel." By voiding these crystalline masses, before they have become agglutinated together, as sometimes happens, the formation of a true stone is fortunately prevented. It is probably in consequence of the absence of any unusual quantity of mucus in the urine and of any associated ammoniacal decomposition, that as yet there is little or no disposition towards a deposition of phosphates.

This lack of secondary phosphatic deposition must be regarded as the condition by means of which the various sandy or grit-like particles lodged in the bladder and in contact with each

other, refuse to adhere to each other. As long as the patient therefore gets rid of less gravel, continuously, or by "fits," it is not likely that a stone will form, especially while the urine remains clear; but there are numerous exceptions to the last remark. Should the patient cease to pass sand or gravel for any unusual period, the probability that a stone is forming becomes very considerable. In all cases of this kind, the patient should be sounded without delay.

In other instances there is no ascertainable history of uric acid sand in the urine, but there is a history of nephritic colic, marked by sharp pains in the lumbar region shooting down into the testicle or the thigh, and lasting for several hours, or even for a day or two. Relief is sudden when the calculus drops from the ureter into the bladder. If the kidney-stone be small, or the ureter unusually dilatable or of large size, a calculus may pass from the kidney without exciting any immediate symptoms whatever, indeed altogether without the patient's knowledge. With or without an attack of nephritic colic, therefore, a stone may drop into the bladder, and after a few days, or even hours, may be passed by the urethra, if not too large. An intelligent patient will bring it to his physician, who will find it to be roundish, of granulated exterior, and most likely to consist of uric acid, with some pulvulent, fawn-colored matter upon its surface. The patient's urine will be found acid, and on cooling will let fall an abundant crop of rhomboidal crystals of uric acid.

It is safe to conclude that when a calculus of this kind has been voided the patient will some day void another like it, and sooner or later retain one in his bladder. In every such case, therefore, it is quite within the bounds of reasonable probability that a similar calculus *already exists* in the bladder, too large to pass, especially when an unusually long period of time has elapsed since the passage of the last one. Such a stone, too large to pass by accidents of shape, composition and size, may wholly fail to produce very noticeable symptoms, while smaller calculi are voided as they arrive from the kidney. The passage of a calculus, therefore, is a peremptory indication for the use of the sound.

It is not at all unusual for a kidney-stone to become lodged in the prostatic urethra, or just behind the bulb in the membranous urethra, or even in the penile portion behind a stricture.

Here it may remain a very long period, and grow by local accretion. It may grow backwards towards the bladder, forwards, or in all directions more or less uniformly. I have extracted such a stone which had remained in the membranous urethra over twenty years, attaining a size of an inch in diameter, a constant source of distress and occasionally of very acute symptoms, which however had not prevented the subject of it from marrying and having two children. Another stone lay in the bladder and was simultaneously and successfully extracted. This accidental impaction is more frequent in children on account of the small relative size of the puerile urethra. The most striking symptoms are great pain in making water, a marked diminution in the size of the stream, often with overflow, especially when the bladder is full. This symptom occurs both in children and adults, but is most marked in children, because the stone prevents a perfect closure of the urethra either by contraction of its vesical orifice or of the muscles surrounding the membranous portion, the prostatic sinus, in which in most cases the stone is lodged in adults, being as yet in children undeveloped, and too small to contain the stone.

Frequent and painful micturition, therefore, in adults with persistent pain in the perineum and penis, and pain on defecation, with or without dribbling of urine, and acute incontinence in children, accompanied with straining and pain in micturition, and the usual pulling at the foreskin and glans, constitute indications for the use of the sound, of an imperative character, even although the urine be clear, and no blood has ever been passed.

Stone sometimes forms insidiously, the symptoms being latent or very slightly or vaguely expressed for a long period. All at once they explode and thoroughly awaken the patient and his friends to the fact of grave trouble in the urinary organs.

Cystitis is frequently absent in children who have carried a stone for several months, the urine remaining clear and free from pus or mucus. Although the bladder usually declares its intolerance of the foreign body by an exaggerated irritability, cystitis is but slowly awakened. At a more advanced age, and especially in late adult life, the presence of stringy muco-pus in the urine is observed much sooner, even when the stone is comparatively small, if its sojourn in the bladder has been prolonged. A small stone lodged behind an enlarged prostate in

elderly men, and thus prevented from coming into contact with the neck of the bladder, may fail for a long period to give rise to any noticeable symptoms.

However originating, when a calculus in the bladder has attained any considerable size, the symptoms are too marked to escape attention. The frequent micturition by day rather than by night, (the reverse of prostatic hypertrophy, prostatocystitis, etc.) the occasional bleeding, the almost invariable cloudiness and purulence of the urine, the occasional stoppage of the stream, the pain in the penis and its glans towards the close of micturition and for ten or fifteen minutes after the act, the not infrequent pains in the legs, feet, loins, and even distant parts of the body, when the desire to make water comes on, the aggravations of all the symptoms after unusual or rough exercises, especially on horseback or of a jolting character, constitute conditions which almost certainly point to the existence of a stone in the bladder, when most or all of them are observable. When only a few, though not the least conspicuous of these signs are manifested, the existence of a calculus is far less certain. Symptoms closely simulating those of stone in the bladder are often present in chronic inflammation of the prostatic urethra and neck of the bladder and some diseases of the rectum and prostate. In prostatocystitis we may have a stoppage of the stream during micturition, of spasmodic character, due to reflex spasm of the muscles surrounding the membranous urethra. Here we also encounter frequent micturition, acute pain during and after the act, cloudy and purulent urine, often of a very marked and persistent character, and occasional bleeding, a cortege of symptoms wonderfully like those proper to stone. Indeed we must not forget that nearly all the symptoms of stone are due to a cystitis of the surfaces brought into contact with it, mostly in the neighborhood of the neck of the bladder in the early stages of the affection during which period it is especially apt to be confounded with other conditions. Before having recourse to the sound, however, a careful consideration of the case will in most instances enable us to form a correct diagnosis, at least so far as this may bear upon the advisability of sounding. In stone, the symptoms are always more marked by day than by night, and are especially aggravated by rough exercise; this is not the case to anything like a *similar degree*, in any form of prostatic or prostatocystitis. The pain in the penis is felt as an occasional

darting twinge accompanied by dull and dragging sensations in the loins, perineum, inner side of the thighs, and particularly in the small of the back, in prostatic and vesical disease not due to stone. There is also acute pain attendant upon the close of micturition, and persisting for *some time after that act*, as in stone, but these symptoms yield to *treatment addressed to the cystitis*, which does not happen to any appreciable degree when there is really a stone.

Both when calculus exists, and in the pronounced and very distressing cases, here considered, these pains, however different in degree, have a similar origin, viz., contusive pressure upon the inflamed and hypersensitive lining membrane of the bladder near its outlet—in one case by the contraction of the bladder upon a calculus towards the close of micturition and afterwards, until a certain quantity of urine is again poured into the bladder, and in the other by the contraction of the muscular layer of the organ upon the inflamed mucous coat itself. In prostatovesical catarrh the desire to make water becomes so imperative as to be very painful and quite irresistible, but this pain is almost at once relieved by the expulsion of the urine, which is highly irritating in most such cases, either from acidity or ammoniacal causticity. A similar state of things exists in hypertrophy of the prostate, after prostatocystitis has been kindled. In stone, on the other hand, the painful desire to make water, which in all cases of bladder trouble is significant of some grade of cystitis, or of conditions directly causative thereof, is greatly aggravated during micturition by the grasp of the bladder upon the rough calculus. This pain, it is important to note, persists *in full intensity* after micturition; so intensely, indeed, as to make children scream out and become utterly unmanageable, and to evoke in adults expressions of great agony. After the lapse of some ten minutes or more the pain abates, and ceases when enough urine has again entered the bladder to lift its coats away from the irritating surface of the calculus. Nothing so strongly marked as this, except in very unusual cases, is seen in any form of inflammation of the bladder or of the neck, which is not complicated by the presence of a stone.

Additional light is also thrown upon the case by its history. Prostatocystitis is not seen in childhood, being an affection directly linked to the venereal functions of the organ concerned. In young men it is a sequel of gonorrhœa, and an accompaniment

of gleet or of stricture. In older men, especially unmarried ones, it is often induced by irregular and immoderate sexual indulgences. Impairment of the hepatic functions, the influence of malaria, high living, a gouty or rheumatic diathesis, and old stricture and prostatic hypertrophy must be ranked as its most usual predisposing causes.

Whenever there is any reasonable doubt, however, it will be expedient to examine the *urethra* and the bladder with the sound. Indeed, it may be formally stated, that whenever a chronic cystitis proves unamenable to treatment, it becomes desirable to sound for stone, for we should, in such a case, suspect the existence of some local cause of irritation, whatever this may prove to be, as we justly suspect the malignant nature of internal diseases when they prove rebellious to treatment, or of ulcerations which recur or absolutely refuse to heal, provided positive characteristics of benignity are absent. In hypertrophy of the prostate, prostatic cystitis is sooner or later kindled, and when in such a condition the desire to pass water is unusually frequent, and where dragging pains in the perineum or rectum, or in the penis or loins, are likewise observed, it will be also proper to sound, for a stone frequently forms in the *bas-fond* of the bladder and maintains and aggravates all the symptoms. We will not, most probably, have any bleeding, except perhaps after unusual jolting or horseback riding, nor the characteristic pains during and after micturition, for the stone cannot come into contact with the tender and sensitive neck of the bladder, and, as the bladder is unable to contract perfectly, its coats can seldom be wounded by contact with the calculus. The ammoniacal fermentation and chronic cystitis which sooner or later complicates prostatic hypertrophy, and especially the incomplete emptying of the bladder, are conditions highly favorable to the formation of a calculus, whose growth would be marked by the symptoms proper in the dominant affection. Partial atony of the bladder exists in all cases where a considerable quantity of urine is retained, and the atony may even be complete in more advanced cases requiring the habitual use of the catheter. Here the conditions are practically identical with those attendant upon diseases or injury of the spinal cord adequate to produce paraplegia. The origin, or at least the growth of the calculus, or deposition of incrustations, is in both cases due to stagnation of the urine with ammoniacal fermentation.

Phosphatic stones, for similar reasons, are very apt to form during chronic cystitis induced by stricture; the bladder becomes more or less sacculated, and the sacculi are necessarily atonic, being devoid of a muscular coat. This is especially the case when the stricture is an old and tight one. In such cases, by the usual mechanism, the muco-purulent secretion of the inflamed parts, sooner or later, acts as a ferment upon the urine and induces a fermentation of the urea, with evolution of ammonia. The urine is stinking, ammoniacal and exceedingly irritating, and still further aggravates the cystitis. A vicious circle is thus formed, which can only be broken by the removal of the stone and a daily cleansing and perfect emptying of the bladder. Phosphates accumulate in the bladder unless this is done, and many eventually agglomerate into a calculus. So likewise, in virtue of the induced cystitis, and possibly at first even without noticeable inflammation, phosphates are quickly deposited upon all foreign bodies left within the bladder by design or accident. Whenever, therefore, as a general rule, the symptoms of vesical inflammation persist for an unusually long period, or prove uncommonly obdurate, after or during the treatment of stricture, hypertrophy of the prostate, or in paraplegic conditions, even in the *absence of other signs* of stone, the use of the sound, repeated until certainty is attained, must be regarded as an imperative indication.

In children, the presence of a calculus in the bladder gives rise to marked symptoms, even before any blood has been passed or the urine becomes at all cloudy or purulent, in perhaps the majority of cases. The frequency of micturition, in spite of an evidently great aversion to the act, the desire to pass water while lying on the back, which the child learns by experience lessens the pain, the straining, coincident hernia, prolapse of the rectal mucous membrane, the frequent erections, habit of pulling at the prepuce, and the prolonged cries when making water, are very characteristic of the presence of a stone either in the bladder or *urethra*.

We may now summarize the indications for sounding, as follows:

- 1st. Where a patient habitually passing gravel has ceased to do so for some months, especially if unusual frequency of mic-

turition, with pain during and after the act, and an occasional stoppage of the stream of urine be observable.

2d. Whenever a calculus has been passed.

3d. When dribbling of urine in children or adults is associated with painful and frequent micturition. Here the calculus may be lodged in the urethra.

4th. In rebellious and somewhat doubtful cases of prostatocystitis.

5th. In hypertrophy of the prostate with partial atony and chronic cystitis, where the bladder symptoms are unduly pronounced.

6th. In cases of long standing stricture where chronic cystitis co-exists.

7th. Where frequent micturition coincides with pain during and after the act, even although no blood, calculus, nor gravel has ever been passed, and where there may not be any history of nephritic colic.

8th. In the typical cases, where stoppage of the stream of urine, frequent urination by day, pain during and after the act, occasional bleeding, pain in the hypogastrium, inner sides of the thighs and perineum, aggravated by rough exercise and turbidity and offensiveness of the urine, exist; and where, in children, most of these signs are associated with others peculiar to childhood, such as inguinal or umbilical hernia, prolapse of the rectum, pulling at the prepuce and frequent erections, etc.

9th. In the female sex the indications are modified by the proper anatomy and functions of the pelvic organs. Calculi in females are mostly phosphatic, being formed by concretion around foreign bodies introduced into the bladder, by the deposition of urinary salts in the pouch of a cystocele, or occasionally by a similar mechanism, after operation for vesico-vaginal fistula, where cicatricial distortions give rise to the formation of pouches from which the urine can neither be expelled nor washed out. Renal calculi pass without difficulty through the capacious, short and dilatable urethra of the female; stones of even an inch in diameter frequently do so in the adult. Unusually large stones, however, occasionally become impacted in the urethra, both in children and adults, and attract attention by the ischury and dribbling to which they give rise. Moreover, on account of the situation and easy drainage of the female bladder, crystalline deposits, or even gritty agglomerations of such deposits, alto-

gether fail to induce any degree of vesical irritation at all comparable to that observed in the male sex. For these reasons, stone in the female bladder is a rare occurrence. With women, bladder trouble points, in the vast majority of cases, in the direction of *the uterus or the kidney*, and not towards calculous disorder. Under puberty, this is somewhat otherwise. As doubt nevertheless will occasionally obtain, even in adults, and in order to avoid error by assigning vesical symptoms to a uterine origin, when such symptoms are found to be intractable, or inexplicable by uterine pathology, an examination should be made with a uterine sound, passed through the urethra, while the finger of the left hand in the vagina supports and elevates the floor of the bladder.

Translations.

FROM THE ITALIAN.

STORIA COMPENDIATA DELLA CHIRURGIA ITALIANA. DAL SUO PRINCIPIO FINO AL SECOLA XIX. Del Professore CARLO BURCI. [For the JOURNAL.] JOSEPH WORKMAN, M.D., Toronto, Canada, Translator.

COMPENDIATED HISTORY OF ITALIAN SURGERY—CONTINUED.

In GERMANY, although in the period of time (17th century) of which I have been treating it boasted of universities and of eminent physicians, the study of surgery was incomplete, barely tolerated, and its progress slow and difficult. The art, left for so many ages in the hands of a rude and ignorant class (barbers and bathers), was held in contempt, and was especially reviled by the physicians, who, by their cunning, and for their own interests, kept it under foot.

In AUSTRIA it was indebted to the protection of the Emperor, Joseph II., who, being philosophic, understood that surgery would be unable to make, for the good of the country and of the army, that progress of which it was capable, unless it were emancipated from that servility and slavery in which it had been held. He conceded to the surgeons prerogatives, rights, titles and honors, which befitted scientific men. He erected civil and military hospitals, and in that of Vienna he founded a school of medical surgery, the first in Europe, and endowed it with six chairs, given to able men, whom he had, at his own expense, sent to the various celebrated schools of Europe, and he endeavored to enrich the new institution with all those means which might aid the progress of art, as anatomical museums, a rich library, abundant apparatus, and whatever else could give lustre to surgical studies. Annual premiums for the scholars were established, and for the masters, salaries large and sufficient, with honorable repose. After so much done by Joseph II., surgery in the Austrian empire was made secure, nor has it since declined.

In PRUSSIA the King had, in 1714, caused the opening of an

anatomical theater, and in 1744 the medico-chirurgical college came into existence. Frederick the Great had in his army many very clever men, as Bonneas, Shinner, Reo, Thedau, Bilguar, Nuosisma, although the majority of the civil surgeons were then but little instructed and capable only of treating wounds and opening abscesses. It was only at the end of the last century that grand Germany was able, following the example given by Joseph II, to raise herself to a like altitude in surgical discipline, and to attain to the level of other civil regions, which in some specialties she may now even surpass.

[We shall now take up the sequel of German surgical history, given near the conclusion.]

In Germany the progress of surgery was slow, whether from the abject state in which the people and the government held the surgeons, who were constrained to make fellowship with barbers and bathers, and were therefore ignorant and plebian; or from the cruel tyranny of the physicians, who, eclipsing them with their togas, drove them to live in humiliation and disrespect. A German physician of those days would have believed he had defiled himself and prostituted his dignity, should he in any way have given his hand to surgical work. How much was Italy and for how many ages in advance?

Lorenzo Heister, a man of marvelous genius, was the first to give honorable life to German surgery, and as he was at once a physician, a botanist, an anatomist and a surgeon, he confronted with his authority and knowledge every one who endeavored to humiliate the art, and to repudiate it from medicine. He recommended it to governments, universities and academies, and fraternized it to medicine, and he was a beneficent and wise promoter of surgical studies.

If Germany was tardy, in comparison with Italy, France and England, in promoting the advancement of surgery, on the other hand, in Prussia on the Rhine and in the small German States, the progress in its fostering, and a particular zeal and love for its cultivation, were rapid. The history of surgery then, and in the second half of the last century, displays such a number of published works, and of masters in the art, especially in military surgery, obstetrics, the study of diseases of the bones, hernias, wounds, etc., as to render it very difficult to the writer of a short summary to offer a correct account of them. Having signalized *Lorenzo Heister* as the father of German surgery, it

might be a pleasure to me to proceed to an enumeration of some of those learned men who, by their labors and teachings, raised the art of surgery to honored splendor, diffused it rapidly by their works, their words and their example, and in a short time placed it on a level, if not indeed in some parts above its position, in the most cultivated nations of Europe.

[The author then introduces a long roll of distinguished surgeons and their published works, covering the period between 1787 and 1813. The following are the names of the more celebrated: Richard Peter Garick, Eller, Reht, Frederick Christian Boerner, Platner, Acrel, Barth, Ludwig, Schmidt, Brunner, Jaeger Beer, "and above all, *Richter*." Of the last named, the author speaks in very eulogistic terms, and it would hardly be just to abstain from reproducing some portion of the honorable record of this distinguished person]:

AUGUSTUS GOTTLIEB RICHTER was born in Saxony, in 1742. He studied at Gottingen, with his uncle, a physician and professor of therapeutics in that celebrated university, and he there received his degree of doctorate, in 1764. He then visited London, Paris, Amsterdam and Leyden, always observing and studying. Having returned to Gottingen, he was, in 1771, appointed ordinary professor of medicine; then, in 1779, chief physician to the King; and, in 1782, aulic councillor. For the long period of forty-six years, he continued to teach and to practice with high renown, and he was a glory to that school, not soon to perish, in which he was admired in the chair equally as he was at the bedside of the sick. His instructions were a store of science and just criticisms. He dedicated himself especially to the study and advancement of surgery, and after the death of *Heister*, he became the most celebrated and illustrious surgeon of Germany. He died in 1812, old and venerated. Richter applied himself to oculistry, general surgery, medicine and medical history.

[The author here presents a long catalogue of Richter's published works, amounting to some sixteen, on a variety of subjects, chiefly surgical, which he closes with the following encomium]:

The works of Augustus Richter, which most widely spread

his fame, as well because of their vastness, as of their opportune appearance, were his "*Fasciculi Observationum Chirurgicarum*" (1770, 1776, 1780); his "*Magna Bibliotheca Chirurgica*," in fifteen volumes (1771 and 1779); his "*Medico-Chirurgical Clinical Observations*" (1793); and his "*Elements of Surgery*," which, in numerous translations, ran over all Europe.

After Richter, then followed in oculistry, Hoenler, Schiferly, Conradi, Weissenborn, Wrisberg, Oehmen, Nootnagel, Plenck, Schmucker, Wenzel and others. In other branches of surgery should be recorded Smucker, Murino, Hoelpin, Nagler, Fiker, Weber, Weimann, Bruning-heussen, *Camper*, Venel, Greve, Gesches, and a long series of able pathologists, who shed light on surgical pathology.

The labors of *Camper* on hernia are worthy of particular notice. He was the first to give proper instructions for the employment of the soft pads, and those most effectual in preventing descent.

I cannot take leave of the subject of the progress of German surgery without noticing the advance made in obstetrics and the treatment of the diseases of women, although but a short time had been given to the men who cultivated this important branch of surgery, for which institutes were founded, and schools established for its more complete teaching.

It was *Van Swieten* who urged Maria Theressa, Empress of Austria, to lay down rules for the study of obstetrics; for which purpose she sent to Paris, where Levret then flourished, the surgeon Kranz, who afterwards became professor of the art in the school of Vienna, and Director of the Maternity. The Viennese institution was afterwards imitated in Florence and Milan, under the auspices of the same sovereign. Germany was not deaf to the inviting call thus uttered. After the obstetric institution of Vienna, the private one of Melitsch, at Prague, arose; next, the public one at Berlin (1757), where Meckel, Fried, Henckel and Wefgen figured; then that of Gottingen, with Roederer at its head; that of Cassel and Magdeburg, illustrious by Stein, who was the greatest obstetrician of Germany in the last century.

The surgeons of HOLLAND were not slow to profit from the lessons given by their neighbors. Roonhuysen invented the *lever*, but made of it a monopoly, and a secret in his family. It was afterwards described by Vischer, Van de Poll, DeBrugen, and more particularly by DeBree, of Amsterdam.

[QUERY.—How long would Roonhuysen's lever have survived publicity? Is any medical *secret* worth a cent?]

The obstetric schools of Germany gave impulse to those of Copenhagen in Denmark, and of Petersburg and Moscow in Russia, through the works of the physicians Condoidi and Erasmus, but in an especial manner through those of the chief physician, Mohnenheim, who, although first physician to the Czar, did not disdain to wait on poor parturients. He published a treatise on "Obstetric Art" (1791), which was received with eagerness and applause. Obstetrics, both as an art and a science, at the end of the last century, was diffused throughout Europe, and numbered able scientific men, who cultivated it with love, and taught it in renowned schools, in which the instruction of nurses and midwives was not neglected.

In FRANCE, after the splendid light which the great *Ambrose Paré* and his school had diffused, surgery, in the second half of the 17th century—continually persecuted by that medical faculty always averse to surgeons, and ever dreading to lose their sovereign sceptre of official teaching of the healing art—declined. Two men, however, illustrious and highly meritorious, raised her from her humiliation. These were *Bienaise* and *Roberdeau*, who privately and at their own expense, opened schools, taught surgery, and paid their demonstrators. The example proved admonitory and fruitful. Louis XV., in 1671, reinstituted the school of surgery, took it from the physicians, and confided it to a surgeon of great ability, *Dionis*, who taught anatomy and surgical operations with universal applause. *Felix*, *Clement*, *Mareschal* and *Breissier*, who were in great reputation at court for having cured the King of a fistula in ano; also *Duverney*, *Littre*, *Merg* and *Winslow*, protected and aided the new school, to which a great many auditors flocked. The surgeons of the hospitals conducted their friends and the students to the beds of the sick; and thus theoretical, practical and clinical studies, in the capital of France, prepared the way to the revival of surgery.

Saviard, in the Hotel Dieu; *Mareschal* and *Jolet*, in La Charite, and *Mauriceau* in the obstetric halls, called their students into the practice of the art, and then arose *Petit* and *Lapeyronie*, great surgeons, enthusiasts in their art, and propagators of it; men who sacrificed everything in order to fulfill their duty.

Louis XV., having admired their zeal and the evident utility of their teaching, in 1724 founded the surgical school of St. Oosimo, which came very near being devastated by the fanaticism of the medical faculty, who, having marched to the school in solemn pomp, with a skeleton as their standard, were hissed and led back by the populace to their starting point, and thus the school was saved.

From this sanctuary of surgical art, which had as its benefactor and protector Lapeyronie, who, while he lived, consecrated himself to the lustre of the school, and after death bequeathed his fortune to institute a library, an anatomical theatre, annual prizes, and everything which might be necessary to the improvement of the art. Afterwards had birth the Royal Academy of Surgery, that areopagus of great fame and universal authority known to all. Thenceforth surgery in France had its grandeur, independence and honor, and it had still more, when a declaration from the King, in 1748, separated the surgical body from the barbers, instituted academic degrees, and prescribed for masters in surgery rigorous examinations. At that time arose Chopart, who taught the practice of surgery; then came Desault to light, a bold and learned surgeon, whose school had a salutary influence over surgery throughout Europe, and of whom I cannot avoid particular notice.

PIERRE JOSEPH DESAULT was born February 6th, 1744, at Magny Vernois, a village near Luré (department of Haut Saonne), of a family who lived on the scanty products of a small property. Educated in a college of the Jesuits, he became proficient in mathematics, and afterwards devoted himself to the study of surgery, in the military hospital of Bèfort, where he remained three years; he then proceeded to Paris, where he followed the lectures of Louis, Morand and Sabatier, in the college of surgery. Soon after, he himself commenced to teach anatomy and surgery, and had so many auditors as to arouse the envy of his rivals who wished to silence him. Though but the usher of an official master, he continued in his own line of instruction for many years. Being accused of having no aptitude for surgery, however able he might be in anatomy—with his apparatus for fracture of the clavicle, ligation of arteries after amputation (the practice of Puré fallen into disuse), his proposal to ligature the aneurismal arteries above the tumor, his appa-

tus for fracture of the neck of the humerus, and his modifications of many surgical instruments, as amputating knives, which then were curved and he desired to have straight—he dissipated the calumnious accusal thrown against him, and followed his own path. Although not yet an associate of the college of surgeons, as required, he was called to a professorship in the school of practice, where Chopart lectured, with whom he entered into a friendship which lasted through life. The generosity of Louis came in aid to the poverty of Desault, and he placed him in a position to be admitted into the college of surgeons (1776), where he defended his thesis on the gorget of Hawkins, as modified by himself. He next became a member of the Royal Academy of Surgery.

In 1782, when the cloud of the terrible revolution appeared, he was appointed surgeon in chief of the hospital La Charité, and it was then he illustrated fracture of the radius, the olecranon, the rotula, and made use of compression for varicose sores and scirrhus, modified the operations for harelip, fistula in ano, umbilical hernia, also modified and invented new processes and instruments for nasal and uterine polypi, for the latter of which Leusat had opened the way. In 1788 Desault passed from La Charité to the Hotel Dieu, always chief surgeon, and he there had a very large field for his work. He there established a *Clinique*, the first in France, and so completely did he devote himself to his art and his students, leading them to see for themselves, and to study diseases, that he made his practical exercises the most classic in Europe. "From Desault, (says Bichat his disciple) men learned a simple doctrine, touched by nature, disencumbered of a farrago of useless remedies, fecundated by the genius of a great man, who was framed superior to art, and was capable of creating that which art wanted." To tell how much Desault did for surgery, would be a long discourse. There was not, it may be said, an operation then in practice which he did not try to improve, and from necessity he created many. He invented the Kiotome, the apparatus for extension and counter extension for fractures of the femur, and many other things for other fractures. The great merit of this eminent man, and of his extraordinary genius, was that of having awakened in all an euthusiasm for surgery, which he regarded as highly meritorious, and of having given life to a surgical clinique, to which the studious, from every part of Europe ran,

and from which they went forth able surgeons. During the revolution (1794) the faculty of medicine and the college of surgeons, at Paris, were fused into a single institute, called the school of health, to which Desault was called, to teach clinical surgery. But he was so much vexed by this change, and by this consortation of medicine with surgery, of which on the contrary he should have rejoiced, that falling into a taciturn and depressed state, and being struck by a cerebral affection, he died June 1st, 1795, having hardly reached his 51st year.

Desault was a great surgeon, passionately fond of his art, and so zealous that though having a family, he slept in the Hotel Dieu, that he might always be prompt in his duty. If we except his thesis, he published nothing else. (?) He was rude and violent, and he often appeared uselessly unpitiful. He knew much of surgery, but little or nothing of medicine, and this was bad for the surgeons who went out from his school, as they conformed themselves to a dualism pernicious to humanity, and through imitating their master, they exhibited in their practice rather rough and and gross manners. It appeared as if a surgeon meant a person without grace, gentleness, decorum, or compassion. Even in Italy the *coute-coup* of that school was felt for a long time. Such were surgeons, and surgeons only, men of large knowledge, but frequently of little refinement. Roughness and little pity appeared to be qualities necessary to the art; it was an error, an unpardonable error. If in the school of Plato the graces were represented; in hospitals pity should be represented in all her forms.

"Returning now to the history of Italian surgery, to which this article should have chief regard, and taking our departure from the beginning of the 18th century, when the doctrines of the great Galileo had begun to govern science, and had opened the road to physical truths, and prepared the foundations of true natural philosophy, I will say that many and valuable were the labors of the medical surgeons of Italy, by which surgery has been led onward to our times most honorably, no longer now despised and subjected to the tyranny of medicine, but aided and protected by her. Besides the anatomical studies which were always cultivated in Italy, and were never dismissed from her numerous and flourishing universities; besides the general treatises on surgery, which at various times appeared; besides the special illustrations of various diseases, which are

to-day called monographs, a most important study had its origin in Italy, which was the real basis of operative art, without which it must have run timidly and erringly; this was that anatomy which we now designate *topographic*, or *regional*. It has for its object the knowledge of complex parts, not only in their natural positions, but also in their reciprocal relations, as nature has placed them, so that, finding one, we may by it as a certain guide, proceed in tracing others, availing, for example, of folds and wrinkles of the skin, borders and attachments of muscles, the position and direction of blood-vessels and nerves, or the edges and prominences of bones. Surgical anatomy is also aided by the knowledge of diseases, giving the reason of their principal seats, and often of the symptoms accompanying them. Great is the benefit which operative practice and the whole of pathology, both medical and surgical, have drawn from this special anatomy, entitling it to be maintained wherever surgery is taught.

Proceedings of Medical Societies.

ST. LOUIS MEDICAL SOCIETY.

SATURDAY APRIL 24TH, 1880.

Larynx of Redemeier.

DR. PORTER — I am fortunate in being able to present a somewhat rare specimen of the larynx of the man Redemeier, who was hanged yesterday. Aside from the interest attached to the mental condition of this subject, there are some points regarding his execution, which I desire to mention. The neck was not broken, nor was there any dislocation of the vertebræ as in Nugent's case, who was hanged at the same moment, and who died almost immediately.

Redemeier, who died from strangulation, died a more lingering death. The pulse at three minutes after the fall was 130, then it sank gradually to 78, where it remained for some minutes, then fell to 36, yet it did not cease for 13 minutes in all. During this time there were several convulsions, and even afterwards muscular contractions, most marked in the left arm were noticed. As is here seen, the rope passed directly upon the larynx, crushing in the crico-thyroid membrane, and fracturing the cricoid cartilage. The points of lesion are marked by the black pin in the specimen. Within the larynx you may see the ecchymosis resulting from the pressure, both upon the vocal cords and the mucous membrane. The projection of the crico-thyroid membrane into the larynx is seen almost occluding the respiratory tract. A practical question arises here.

Is it not always desirable to break the neck of the criminal in such executions? Some resent authorities have attempted to prove that death by pressure upon the veins, arterios, nerves, and air passages of the neck is painless. It certainly cannot always be so, and it seems that this is a case in point, especially when compared with the other. A very simple addition to the present noose, such as a hollow wooden ball, slipped over the rope close to the neck, will I am sure secure fracture or dislocation of the cervical vertebræ.

After some further experiments upon the lower animals, I will ask permission to again introduce this subject to the Society.

DR. MAUGHS—Why not give them chloroform?

DR. DICKINSON—It was my duty several years ago to be present at the execution of a man, and the data were very similar to those in the case of Redemeier. Life was prolonged about 17 minutes. Of course we cannot determine whether there was any pain or suffering, but nature seemed certainly to say there was. There were convulsions which continued with greater or less frequency during some 10 or 12 minutes. This criminal unquestionably died from strangulation. The vertebræ remained intact. I think statistics show that only about $\frac{1}{4}$ or less than $\frac{1}{4}$ of criminals hanged, die in consequence of fracture of the vertebral column.

DR. MOORE—As regards the manner of execution, when we look at it from a humanitarian standpoint, certainly it is our duty to make a man's exit from this world as easy possible. But the great object of executions is to repress crime, and consequently it would not be good policy to make the executions of an agreeable character, and the more repugnant they are to our feelings, the more effective they will be.

Hypothetical Cases.

DR. STEVENS—I have in my pocket the hypothetical case presented to the jury in the case of Michael Kotovsky, who was recently indicted in the Criminal Court and found guilty of murder in the first degree. I would like to read this hypothetical case to the Society. I have felt for a long time as though the medical profession has a very slight appreciation of the difficulties and embarrassments under which we as experts labor in these cases. They do not attract the attention of the profession generally, and do not attract the attention of the public. The better class of society very rarely go to the Criminal Court in any considerable number, and I do not think that they and the medical profession generally understand our position. We know that there prevails a sentiment in the community, which I believe is a false one, in regard to the too frequent urging of the plea of insanity. I do not believe it is urged any too often; not that I do not believe that it has often been abused, but I believe that a great many persons are executed who are insane, and who might be proved to be insane. Then again I believe

that some of the worst criminals have been cleared on the plea of insanity. The case I wish to bring before you to-night is one in which the man has been declared guilty of the murder in the first degree, notwithstanding the plea of insanity in his case.

Hypothetical Case of M. Kotovsky. By C. W. Stevens, M. D.

Suppose that a young man, 22 years of age, is charged with the crime of murder, and at the trial the evidence established the following facts: That the grandfather on his mother's side was insane and was chained in a room to a block, and when persons looked in the window would spit at them. That the grandfather on the mother's side was of excitable, dangerous and violent temper; that he was subject to causeless outbursts of rage, at which times his whole family would have to flee before him and hide themselves; that his eyes would glare widely as though he was intoxicated, though he had not touched a drink of liquor; that although he loved his wife when at himself, would in these fits of rage attempt her life, and once tried to kill her with a hammer, and in these paroxysmal outbursts would beat and abuse her; that at one time he rushed frantically into a neighbor's house, trembling with fear, under the delusion that someone was persuing him, and he had no reason for so thinking. That he was subject to fits, and epileptic attacks at home and at church, and that on one occasion he rushed out to the barnyard and beat the cows and horses without any apparent provocation till his neighbors interfered, to control him from such abuse of dumb animals.

2d. That the *grandfather* on the mother's side was a cripple, quite deaf and had been so for many years, and was of weak and feeble body.

3d. That his uncle, the mother's brother and son of grandfather and grandmother, was regarded by those who knew him as feeble minded; and so much so that a young lady to whom he was engaged refused to marry him, because she feared he might have inherited his father's insanity and so transmit it to their offspring; and that it was the habit of this uncle to walk alone and mutter to himself.

4th. That his *aunt*, the mother's sister and daughter of grandfather and grandmother, was half witted and half crazy, and manifested her insanity in the form of profound melancholy and

habitual mental depression ; that she was very deaf and her deafness, as that of her mother and sister, was not traceable to scarlet fever or similar other disease, but was *congenital* ; that she stammered badly, was given to fits of melancholy, and when aroused from her meditations would become very much excited. That she was the butt and object of ridicule to the village school children, who called her "silly Josephine" or the foolish Josephine ; that she imagined she had six or nine lovers, when in reality she had none at all ; that she was capricious and notional ; that she would rush out and into the street, pulling her hair and shaking her head and talking to herself, without any apparent cause. That she had eyes, hair and complexion like her nephew, the subject of this hypothetical case ; that she would go from her home to the home of the father of the hypothetical individual in midwinter barefooted.

5th. That his own mother was quite deaf, suffered greatly and almost constantly with violent headaches, was very nervous, noise and confusion running her nearly wild ; was high tempered and excitable, and on one occasion tried to commit suicide by attempting to hang herself, without having any apparent motive for the act, and that the attempt would have succeeded had not her own son cut the rope. That on another occasion she started towards the river, vowing that she would drown herself, without having any adequate motive for the act, but was overtaken and brought back by her youngest son ; that she was habitually nervous, and exciting subjects were kept from her.

6th. That his full brother was born blind in one eye, and so continues up to the present date and is uninformed and unable to understand questions except when couched in simple language.

Suppose that the young man, the subject of this hypothetical case, to have had prior to his tenth year, two spells of sickness, the one being a convulsive affection, accompanied by foaming at the mouth, the other a fever accompanied by a violent and protracted headache.

Suppose his habits up to his 21st year to have been regular and orderly, that he was of excellent moral character, virtuous in his living, not running after women of the town ; attentive to business, careful and fastidious in dress, even to vanity, cheerful in disposition and of a hopeful sanguine temperament, and a general favorite among those who knew him.

Suppose that in the fall of 1877 he was employed by a farmer in the State of Illinois, but was unable to perform the simplest kind of manual labor, namely, cutting down weeds in a cabbage bed; that though he was shown how to do the work and remonstrated with and reprimanded by his employer, and threatened with being discharged, he was unable to perform the work and was discharged by his employer. He had malarial fever, and that afterwards when he had apparently recovered from the said attack of fever, his conduct and actions were regarded by those who worked with him and noticed his whole demeanor and walk and general appearance, as exceedingly strange; that when in walking, his gait would be quick and then slow, then suddenly quick again, and would stop and stare around.

Suppose that the said hypothetical individual came to St. Louis, and that in May, 1878, he had another attack of fever, which was intermittent or malarial in its nature, and that the attack continued through May to June, disappeared in July and August, but returned again in September. Suppose that these attacks were accompanied by severe and constant headaches and much fever, and that it was necessary to administer large quantities of quinine. Suppose that in June, 1878, he made the acquaintance of a girl, by her visiting a saloon for beer, at which saloon he was acting barkeeper. That their intercourse was very slight, and that neither knew the last or family name of the other, that he never called at her house but once, and then did not see her, and she never gave him any affront, nor received any from him. Suppose that in September, 1878, his friends and those most intimate with him began to notice an altered demeanor, a departure from his normal self; that he became careless and untidy in his attire, remiss in business, dejected and low spirited and talked but little, contrary to his usual habits of life. Suppose that in September 7th, (same year) he lost his mother by death and was deeply and profoundly affected by the circumstance, although he did not shed a tear. That he complained to his brothers and his employer of fever and violent headaches; that his employer felt his head, pulse, and found the man hot, feverish, with flushed face and much excited; that he said to his employer, "I am crazy; I don't know what I am doing; there is no use of my staying here any longer." That he said to his half brother, "I'll get into the insane asylum;" that his employer thought he looked and acted like a drunken man, although he did not know him to be drunk at the

time, and never knew him to drink to excess or become intoxicated. That his employer and his half brothers and his father thought he acted queerly, and was very different from his former self, and so expressed themselves. Suppose that he said to a druggist, "I am sick and tired of the world; I'll kill myself;" and on the 3d of October he left a good position, voluntarily, with no good cause, and that he was not discharged. That he staid four or five nights at his father's residence, between the 3d and 10th of October, that he was restless at nights, sleeping little if any at all, would talk in his sleep, and would strip himself entirely naked, contrary to his usual habit, and lie prostrate on the floor in early October, at a season when nights are cool and bed covering a necessity. That he would jump up and walk wildly about the room, laughing and muttering to himself and continued this way all night, on several occasions in succession, immediately prior to the homicide. That his brother, who occupied the same room with him, asked him to get up when he saw him lying naked on the floor, and asked him what he meant by carrying on so; that he replied, "I don't know; I have fever in the head." That he did not get up just then, but laid there awhile, then got up and walked around muttering and again laid down. That this took place several nights, immediately prior to the homicide. That both father and brother remarked the change in him and thought that he was not in his right mind. And even his neighbors noticed the alteration in him.

Suppose that although he had attended in person at his mother's funeral and knew of her death, yet during that week, from October 3d to October 10th, he would ask his father, "Where is my mother? where is my mother?" Suppose that his regular physician, who had been treating him since the 18th of August of that same year for chancre, accompanied by aching pains in the knees and legs, and that he had buboes; that he found him during the three weeks prior to the homicide hopeless and despairing about himself, watching his own symptoms, which were wholly new to him, and which he had never before seen in any one else. That he was melancholy, chagrined, mortified and depressed over his condition, thinking and saying, "I will never get well;" and in the opinion of the physician, altogether different from his natural self; a marked change in his character being from this time observed by all his acquaintances who saw and noticed him. Suppose that on the 3d of October, 1878, the young man

bought a second hand pistol; that he expressed his intention to his employer and to his brother of going to the country, but did not go; that three or four days after he bought the pistol, he again changed his mind and went to the pawnbroker's shop, where he had purchased, it and offered to sell it at a much smaller price than he paid for it. That his manner on the second visit to the pawnbroker's was such that the pawnbroker was struck with it, and thought he must be drunk, but could smell no liquor on the young man's breath, though very close to him; neither did he stagger and the only reason that caused the pawnbroker to think him drunk was his flushed face and excited manner and manifest difference between his actions and appearance then, from this to that of his former visit. Suppose that on the very day of the homicide, October 10th, 1878, he tried to make engagements to raffle the pistol off, and spoke to his brother about it, and succeeded in getting his brother to take several tickets on the raffle to sell.

Suppose that on the night of the week immediately prior to the homicide, he never went to sleep without fever in the head, and lying naked on the floor, then walking about and muttering to himself, and other symptoms above described.

Suppose that on the evening of the homicide and a few minutes before it was committed, that he said to a friend that his former employer owed him two dollars, and that he intended to get even that night; that by his demeanor and language he made the impression on his friend that he intended to do his former employer some injury. Suppose that his employer did not owe him two dollars or any other amount, having settled to the entire satisfaction of the young man when he left his employer, and they parted on good terms. Suppose that on the evening of the homicide he went to the street where the girl lived, took his seat on the steps near the house and said to a girl passing by, "Never mind, I'm waiting for somebody." Suppose in eight or ten minutes he saw two girls approaching, got up and laid his hand on the shoulder of one of them and said, "Is this you Augusta?" at the same time firing his pistol and killing her.

Suppose that he ran away, throwing the pistol aside, then turned, went deliberately and voluntarily to the Four Courts, not twenty-five minutes having elapsed before the surrender, and gave himself up to a detective, knowing him to be such, saying: "Have you got a report of the shooting of a girl on Eighth street?"

detective answered "No; was there any one shot?" He replied, "I shot one! You'll get a report in a few minutes. Shot one myself." During the time this conversation took place, his manner was so calm and collected that the detective had no idea that he had done the shooting and when he made the statement above quoted, the officer thought he was either joking or drunk. Suppose he had manifested no remorse at any time for what he had done. When asked, he told them about where he had thrown the pistol and attempted no concealment of any kind.

Suppose the homicide to have been committed on a public highway, in the early hour of the evening, from 7 to 7:30 o'clock, when there were people around and in sight and in hearing of passers by. Suppose that he had no quarrel with the girl and he had never been known to make any threat of violence, or indicated by any word or act to any person whatever, any intent or purpose to harm or molest her. Granting these facts to be true as set forth and state from your own knowledge of insanity whether in your opinion he was sane and responsible at the time of the commission of the homicide.

The gist of my testimony was this: that I would expect from an ancestry of this kind, where there was epilepsy and neuroses of various kinds, to find in an individual descended from these ancestors some peculiarity of the nervous system, some taint, although I would not infer that the individual would necessarily be insane upon any such ground, but it would lead me to believe, or suspect, if the individual committed any crime such as suicide or homicide, that he did it partially under the influence of a tainted organization. That I would infer at once with regard to such an individual.

Now whether he was insane or not would be another question. We know epilepsy is a form of disease, in which the peculiarities of nervous organization, and the neuroses of various kinds are transmitted, and are more efficient, more powerfully manifested in the progeny, than from any other cause. The strange actions of this man at the time of the murder, the lack of provocation, etc., would go to excite the suspicion that something was wrong; that he went out with the purpose of killing some one, and if he had not killed that girl, he would have killed some one else. I believe that he was insane and irresponsible at the time of the commission of the murder.

DR. HUGHES—I did not hear that hypothetical case read, but I heard it read in court. This hypothetical case differed very little, not essentially, from that presented on the previous trial of the boy when the jury failed to agree. When that hypothetical case was submitted, being unable to find any adequate motive, either in marked jealousy or other cause, and considering the ancestral history of pronounced neurotic taint—as shown in the well marked insanity, epilepsia and other nervous disease, and the congenital defect of his brother, and his own mentally inferior organism, I had no hesitancy in concluding that if all the facts were true as set forth in that hypothetical case, that the act of homicide was the offspring of a disordered state of mind dependent upon a diseased condition of the brain. I could see no other adequate explanation for the act. There was no one of whom this young man was jealous, and the jealous man usually slays the man who stands between him and the object of his affection. The man who desires the destruction of another, in order to secure the gratification of love, is not in his sane moments most likely to destroy the object of his affection. But this subject is stale to me, and I do not suppose it would interest the Society to discuss in detail the various steps by which I arrived at the conclusion that this young man was insane. I prefer to remark on the absurdity and insufficiency of the hypothetical case. In trials where the question of insanity is presented to medical experts, it is usually submitted in the form of a hypothetical case. This erroneous method of determining the existence of disease called forth years ago, from that Corypheus in forensic psychiatry, Dr. Isaac Ray, of Philadelphia, in his "Medical Jurisprudence of Insanity," an earnest protest. Where the life of an individual is involved, and the question as to his sanity and responsibility is raised, the idea of calling upon medical men to pass upon the existence or non-existence of so grave a disease as insanity, without a personal examination, seems to me so absurd as to make the proceeding appear like a travesty on justice. We are called upon, in these "courts of justice," not to prescribe a course of treatment, but to make a medical diagnosis, upon an array of suppositions framed for our consideration by a body of men not acknowledged to be familiar with the symptomatology of the disease. When one of these astute attorneys has succeeded in putting together an array of facts which usually establishes various heterogenous forms of mental

aberration, many phases of which are incompatible, the opposing attorney is permitted also to present another array of suppositions, and these are called hypothetical cases.

The medical expert is summoned—not to testify as to the real case before him, not to tell what he knows of this individual's pulse, his temperature, his secretions, his ability to sleep and eat—not to testify as to any fact that has fallen under his observation, but to give his opinion upon a supposititious case—a case which may or may not prove to be on trial.

That is not all. When you have given your opinion upon that supposition, perhaps before you leave the stand, another supposition is offered to you, and you are to give your opinion upon that, and it not unfrequently happens that a conscientious medical man will be made to testify on both sides in the same breath. I did that the other day. I found no insanity in the hypothetical case presented in the Redemier trial, and which has been read in your hearing. But the hypothetical case presented by the Kotovsky attorney did not represent the case even fairly. There was no insanity in that hypothetical case, and no conscientious man could have said so, while the hypothesis of defence described an undoubtedly insane man.

The consequence in such cases often is, that when a man is on trial for his life, and the question of sanity or insanity is raised and passed upon in this manner, the man fails to get a fair show, and his life depends upon his luck in securing the best attorney to plead his cause. Now, how frequently has it happened in these hypothetical cases that even where both attorneys agreed to a hypothetical case, that the individual has upon one trial been pronounced insane by a majority of the jury, and upon another trial his sanity has been established. Here is a case which upon the first trial such grave doubts were entertained in regard to the man's sanity that the jury failed to agree and another jury with unanimity found that there was no insanity in it. In the case of Anton Holen, which was tried in that same court a few years ago, the question of insanity was raised, the jury found no evidences of insanity, the Supreme Court, in passing upon an application for a new trial, granted a new trial because he failed to get a jury in the proper sequence in which they were drawn, and the second trial was sufficient to satisfy the next jury with the same array of facts of his insanity.

In the case of Connelly, for killing the woman who served

him his bread at meals, under the impression that she poisoned him, and was declared insane, his sentence was commuted, and he was sent to the penitentiary. There he took up the same delusion in regard to the man who served him bread at meals, and one day stabbed him. I pronounced that man insane; every physician in the case except one other beside myself said he was sane, and the warden believed him sane. I told the Governor I would stake my reputation on the man's insanity. A commission was appointed, and they declared the man insane. The man went to the State Asylum at Fulton, and haunted by the same delusion, persecuted by the same impression that they were seeking to take his life by poison, he felt that life was intolerable, and he there strangled himself with some old broom wire. These hypothetical cases are absurd. No satisfactory diagnosis can, as a rule, be made from them. Only the professional observation of medical facts is reliable, and the law is at fault in this regard. If there is a reasonable suspicion that a man is insane and irresponsible for any crime for which he may be arraigned before the courts of his country, he is entitled to have the fact of his disease established.

Every one of these men who have been hung where there was a doubt as to their sanity have been wronged, and there has been more than one judicial murder in this free land of ours because of this fault on the part of the law.

DR. DUDLEY—I would like to ask Dr. Stevens the difference between the hypothetical case presented by the prosecution and the defence?

DR. STEVENS—The hypothetical case presented on the part of the State by Col. Normille, was a very short one indeed. He said, suppose that this man did not have epileptic fits. Suppose that his grandfather did not have epileptic fits, and then suppose the fact of the murder, and the manner in which it was done. Still there was no hypothetical case presented on the part of the State; there were some items that might give rise to the idea of insanity, but they were not of such weight as to evince the fact of the insanity of the individual, and so I testified. There were not facts enough to justify a diagnosis of insanity.

DR. DUDLEY—I would like to hear what information he himself gained with reference to the truth or falsity of the state-

ments that were embraced in the hypothetical case for the defence, during his visits to the jail.

DR. STEVENS—My visits to Mr. Kotovsky in the jail have not been with reference to determining all about his case, but from the conversations I have had with his brother, my personal examinations, and my hearing a good deal of the testimony, I came to the conclusion that he was insane, aside from the facts presented in the hypothetical case. He is a weak minded man; I think the family are all so.

DR. HUGHES—The manner in which this hypothetical case and prosecution was presented was in this way: Suppose that these fits were not testified to have been epileptic fits, but that it was only testified that the patient fell down and frothed at the mouth, and was unconscious and nothing more—upon that the attorney for the defence founded a series of interrogatories as to what those fits were. Of course, the boy observing them might have mistaken them for something else, but it was something grave, otherwise the patient would not have fallen—either epilepsy or apoplexy or epileptic hysteria.

DR. DUDLEY—Did you visit the patient in jail?

DR. HUGHES—No, I never did; that is the protest which I make against the proceeding of the law, which requires the physician to pass upon the sanity or insanity of a person where the question employed is involved without ever being permitted to feel the patient's pulse.

Regardless of the common procedure of medical practice, the law institutes in its wisdom, a method of procedure by which medical men are expected to make a diagnosis, under circumstances that almost render it impossible, and send a man to jail if he declines to swear whether he knows what is the matter with the patient.

DR. JOHNSTON—Dr. Hughes has certainly argued the question forcibly and intelligently. But he only argues one side of the question. It is true the hypothetical case presented by the lawyers may not touch the real case at all. I know the ingenuity of the lawyers in framing these hypothetical cases, so as to make them fit their own side of the question. But it is not difficult for Dr. Hughes or Dr. Stevens to state their opinion as regards to this *hypothetical* case, nor is it their *fault* if the jury unjustly

judge of the real case, from the opinion rendered on the hypothetical case. But with all its defects, it will be a dangerous thing, Mr. President, to abolish our jury system.

DR. HUGHES—I do not seek to make an argument against the jury system. My argument was against the hypothetical case framed by non-professional men.

DR. JOHNSTON—Some men, it is true, have committed great crimes against society, and who have been insane at the time of the commission of these deeds, but is it not better that a man who is insane should occasionally be hung, than that the law should be made impotent by the abuse of the plea of insanity?

Four Cases of Sunstroke Treated by Purgative Doses of Calomel and Ipecac. By G. HURT, M. D.

As the summer approaches, it has occurred to me that a report of the following cases might present some points of interest:

CASE I.—Thos. R., colored, æt. 45, while engaged at work on the levee, Aug. 27th, 1872, complained in the afternoon of pain in his head, but continued at his work.

When called from labor at 6 P. M., he sank down and soon became unconscious and was carried to his home on Orange street.

When I saw him, an hour or two later, he was still unconscious and could only be partially aroused by shaking and loud calling. I was surprised to find the surface of his head and chest rather cool, and that of his extremities quite cold. His pulse slow and languid, breathing only partially disturbed.

These conditions contraindicated the popular treatment by ice, and left the question of treatment to be solved by something else. As I had previously known the patient to be of a constipated habit, the idea that hepatic or renal congestion, or inactivity might be the source of blood poisoning and consequent nerve depression suggested itself, and it at once occurred to me that a brisk cholagogue purgative would strike most directly at the cause of the functional disturbance. I therefore ordered him twenty grains of calomel and two grains of pulverized ipecac to be taken at once. When I saw him next morning he was quite rational. He had remained unconscious till about four o'clock in the morning, at which time he awoke out of his leth-

argy, and began to complain of pains in his abdomen, which were soon followed by copious stools. He recovered without further treatment.

The result in this case suggested the thought that purgatives might prove equally efficacious in cases attended with great exaltation of surface temperature. I resolved to try them.

CASE II.—Just one week later a saloon keeper, on Second street, near Christy Ave., about 30 years of age, after closing his saloon preparatory to retiring near midnight, fell at the foot of the stairway leading to his room on the second floor. When I saw him, half an hour later, he was in a complete state of coma. As he was entirely unconscious, I could learn nothing of the condition of his secretory and excretory functions.

His skin, especially over the head, chest and abdomen was dry and hot; face flushed; pulse full and rather frequent; respiration a little hurried and embarrassed, apparently by an accumulation of mucus in the large bronchi. The head and chest were directed to be covered with ice, the same to be continued as long as the skin remained hot.

A scruple of calomel and four grains of ipecac were prescribed to be given at once. When I saw him about nine o'clock the next morning, he was quite rational, consciousness having returned about four hours after taking the medicine. The bowels had acted freely, his fever was gone, and I had no further occasion to visit him.

CASE III.—In the summer of 1874, A. S., a stout German, about sixty years of age, a journeyman tailor by occupation, and much addicted to beer, occupied rooms on the corner of Fourth and Morgan streets. One afternoon near the close of the heated term, he complained of pain and dizziness in his head, with a sense of fullness and oppression about the chest, and soon after he sank down on his work-bench unconscious.

When I saw him a few minutes later he had been lifted onto a bed where he lay breathing heavily; pulse frequent, but neither full nor strong for one apparently so full of blood; skin dry and hot, and by its color indicated stagnation in the venous capillaries. I had him removed from the feather bed on which he was lying and placed upon a mattress, and directed ice to be applied freely to his head and chest. Two hours later he was still uncon-

scious. The skin over his head and chest, though wet and smoking with the melting of the ice, was still hot.

I then ordered twenty grains of calomel and four of ipecac, which he got about four o'clock in the afternoon, and I saw him again at 10 in the evening. His temperature had by this time abated a little, and there were evidences of returning consciousness. He complained of some nausea and pains in his belly. At 8 o'clock the following morning I found him quite rational, his temperature and pulse nearly normal. The bowels had acted freely during the night and he only complained of weakness. Some attention to diet and rest were enjoined, but there was no further need of medicine.

CASE IV.—In the summer of 1875, while I was in charge at the City Hospital, a patient, a German about 40 years old, under medium height, thick set, but not corpulent, was admitted on a sultry day at about noon in a state of complete coma, breathing heavily, skin dry and hot, pulse accelerated, full and hard. He was placed on a hard mattress under an open window, ice applied to his head and chest, and twenty grains of calomel with four of ipecac ordered to be given him immediately.

Between four and five o'clock in the afternoon there was free action of the bowels with immediate subsidence of the fever and a return of consciousness. No further treatment was required.

Now as those who practice medicine are supposed to have a reason for what they do, and as the rationale for all therapeutics must be sought in the conditions which they are intended to relieve, let us inquire briefly what the conditions are that we may reasonably assume to be present in sunstroke.

The history of the outset and course of this disease is so familiar to medical men, that it is scarcely necessary to notice it here, except as supplying links in the chain connecting cause with effect. Suffice it to say that after a sense of fullness or pain in the head, for a time the patient is seized with vertigo or blindness, or both, falls down and soon becomes unconscious or partially so. If he is full habited and plethoric, and the vital energies not too profoundly obtunded, the temperature of the head and chest, and perhaps of the whole body, is greatly exalted, the skin is dry and hot, pulse full, strong and accelerated and the breathing heavy, as it usually is in a state of coma. But if the vital energies are a little more profoundly de-

pressed, there may be an unequal distribution of the surface temperature, and while the head, chest and abdomen are hot, the extremities are cool or cold. If there be a still more complete obtunding of the vital forces, the entire surface may be below the normal temperature and covered with a cold clammy sweat; the patient is from the very outset in a complete state of collapse.

Now the history of the subsequent progress and termination of the first two classes of cases above noted, is either to gradual reaction and recovery, or they will pass into the third, which usually terminates fatally.

Now the ostensible exciting cause of these conditions is solar heat, but it is obvious that it can only produce them by disturbing the physiological conditions of the blood and tissues, and until these disturbances within are produced, the system will not succumb. But in what do these physiological disturbances which constitute the pathology of sunstroke consist?

Experience teaches that excessive atmospheric heat interferes with the due performance of the respiratory function.

An atmosphere highly attenuated by heat does not eliminate carbonic acid gas from the system with sufficient rapidity, either from the simple fact of its attenuations, or from the fact that it contains a larger proportionate percentage of carbonic acid, as it usually does, also, of aqueous vapor. It impedes the absorption of oxygen into the blood and consequently there is an accumulation of carbonaceous matters in the latter fluid acting injuriously upon both the nervous and muscular tissues. Or possibly the too rapid elimination of water from the blood through the skin, under the influence of atmospheric heat and attenuation, by lessening the quantity thrown out by the kidneys, serves to promote the relation and accumulation of urea and uric acid in the system to act as a powerful sedative poison, which I suspect was one of the conditions in case No. I of this series.

Now if we may be allowed to assume that these are possible and probable conditions of the blood in sunstroke, we shall, I think, have no difficulty in explaining the rationale of the treatment which combined in all the cases, except the first, the heat absorbing influence of cold, with such other remedies as were calculated to act most promptly in depurating the blood by eliminating from it the offending matters. And though it may be contended that in cases of uræmic poisoning, neither calomel nor

ipecac can be considered appropriate, experience has taught and we have the highest medical authority for saying that where grave head symptoms supervene on interruption of the renal secretion, no remedy brings relief so promptly as purgatives, and of this class no remedy acts more efficiently than calomel when given in sufficient doses suitably combined.

But I do not wish to be understood by what I have here written, that I propose to confine myself to any particular routine in this or any other disease, believing that the proper time and place for determining what to do in any case, is at the bedside. And if I fail to convince my professional brethren of the rationale of the treatment of these cases, I shall at least have convinced them of the fact, that some cases of sunstroke will recover without any treatment at all, or even in spite of bad treatment.

ILLINOIS STATE MEDICAL SOCIETY.

THIRTY-SECOND ANNUAL SESSION OF THE ILLINOIS STATE MEDICAL SOCIETY, HELD IN THE ACADEMY OF MUSIC, AT BELLEVILLE, ILL., MAY 18TH, 19TH AND 20TH, 1880.

TUESDAY—MORNING SESSION.

Dr. J. H. Rauch, Sect'y. of the State Board of Health, acting as temporary Chairman, called the meeting to order. Then Rev. F. W. Van Treese offered a prayer and was followed by Dr. W. West, of Belleville, who made an address of welcome on behalf of the local society.

Mr. G. W. Jones, of Danville, the First Vice President, then took the chair and the business of organizing commenced. The committee on arrangements made a report which was accepted.

The resignation of Dr. N. S. Davis, of Chicago, the Permanent Secretary, was read and accepted, and Dr. S. J. Jones, of Chicago, was elected to fill that place.

A number of letters from absent members were read, and then the Publication Committee made a report which was accepted.

After some more business of an unimportant nature had been transacted, the meeting was adjourned to 1:30 P. M.

AFTERNOON SESSION.

The President Dr. E. Ingalls, of Chicago, having arrived, made his address, which was quite interesting.

The Committee on Practical Medicine made its report. Dr. B. F. Crummer, of Warren, read a paper on pneumonia and diphtheria in the Northwestern part of the State, the first part of which was written by Dr. Caldwell. This paper was discussed at some length.

The Committee on Surgery, represented by Dr. Hill, of Bloomington, made a report in which antiseptic surgery and various other subjects were reviewed. The gentleman also read an account of two cases furnished by Dr. Cole, of El Paso.

Dr. J. G. Harvey, another member of this committee, read a paper on a case of extirpation of the parotid gland, and another on an unusual case of hernia. These papers were discussed at some length also.

WEDNESDAY—MORNING SESSION.

Telegrams from the Missouri and Indiana State Medical Societies were received and read. They expressed their good will and fraternal regard, and a committee was appointed to respond appropriately to them.

Dr. L. R. Williams *alias* Lucas, of Chicago, a permanent member, was expelled for violation of ethics in circulating handbills under a name not his own, and claiming to perform marvelous cures.

The report of the Committee on Obstetrics next came in order. Dr. G. W. Nesbitt of Sycamore, read a paper on malformations in fetus due to the influence on the maternal imagination. Dr. Herriott the other member of this Committee, had his paper referred to a later date.

The report of the Committee on Ophthalmology and Otology was made by Dr. Montgomery, of Chicago, who read a paper on suppurative inflammation of the middle ear, and one on double optic neuritis caused by a violent fit of anger. An interesting discussion followed.

Dr. Frank Davis, of Chicago, read a volunteer paper on inhalation as applied to the deeper portion of the respiratory tract.

This paper was also discussed. The society then adjourned till 1:30 P. M.

AFTERNOON SESSION.

On re-assembling, the report of the Committee on Nominations was read and adopted, and is as follows :

President—Dr. Geo. Wheeler Jones, Danville.

1st Vice President—Dr. Wm. Hill, Bloomington.

2d Vice President—Dr. D. W. Nesbitt, Sycamore.

Permanent Secretary—Dr. T. J. Jones, Chicago.

Assistant Secretary—Dr. W. T. Montgomery, Chicago.

Treasurer—Dr. J. H. Hollister, Chicago.

Chicago was selected as the next place of meeting.

The Committee on Gynæcology made a report. Dr. Laura H. Carr of Carlinville, read a paper on neurasthenia as such, and as a remote symptom of uterine disease. A short discussion followed.

Dr. J. H. Rauch read a paper, showing some of the work done by the State Board of Health.

Dr. Patrick, of Belleville, read a volunteer paper on medical specialties.

Dr. H. Z. Gill, of Jerseyville, read a special report on the identity or non-identity of membranous croup and diphtheria.

The Jersey County Medical Society, which had charges of irregularity preferred against it, was re-instated and the charges dismissed.

The Committee on Necrology reported progress.

Dr. E. Ingalls, of Chicago, read a short notice of Prof. Thos. Bevin, deceased.

Dr. Herriott, of Grafton, a member of the Committee on Obstetrics, read a paper on anæsthetics in labor. An interesting discussion followed.

Dr. Lee of Chicago, read a volunteer paper on Tracheotomy. This was discussed at some length.

A letter from the St. Clair County Section of the National Women's Christian Temperance Union was received, asking the Society to discuss the subject of temperance, and to embody the result in a resolution. A committee to which it was referred made a non-committal statement, and the matter was further re-

ferred to a committee to report at length at the next annual meeting.

A resolution was adopted to allow members to publish their communications to the society in journals.

THURSDAY—MORNING SESSION.

Dr. Nesbitt, of Sycamore, was appointed a committee to memorialize the Legislature to appoint a State Board of Hygiene, with special reference to schools and school houses. Also another bill to do away with trial by jury in cases of insanity.

Dr. Lee, of Chicago, read in behalf of himself, and Dr. Fenger, of Chicago, a paper on tuberculosis of joints with excision. Successful cases. Two of the patients operated upon were presented.

After this the delegates to the various neighboring State Societies, and to the American Medical Association were appointed, and the Society, after passing a number of resolutions of thanks, adjourned to meet in Chicago on the third Tuesday of May, 1881.

The following St. Louis physicians were noticed in attendance; Drs. Ed. Borck, P. H. Cronin, Wm. Dickinson, C. H. Hughes, I. N. Love, J. H. McEntyre, E. M. Nelson, A. H. Ohmann-Dumesnil, Wm. Porter and T. F. Rumbold.

The meeting on the whole was pronounced to have been one of the best attended, and most interesting that had been held for a number of years.

The address of Judge Snyder on behalf of the citizens of Belleville, Prof. Hodgen's lecture on "Formation of Character," and Prof. Jewell's lecture on "Hygiene," were ordered to be printed in the transactions of the Society.

PRESIDENT INGALL'S ADDRESS.

He expressed himself sensible to the honor conferred upon him of presiding over the meeting. There was cause of rejoicing in a re-union which permitted us to cement the bonds of friendship and to do great good. He did not expect to say anything novel, but hoped it would be useful. He proposed to speak on the rights and duties of government and medical societies in regard to sanitary measures. The physician is the natural teacher of the people on sanitary subjects, and should instruct them to the best of his ability. Every severe case of sick-

ness should cause him to inquire into the unsanitary relations of the patient. It is perhaps better to prevent disease than to cure it. If greater emphasis was laid on hygiene in our medical schools they would produce better pupils.

Homer expressed the opinion of the most enlightened people of his time when he sang of Jove's ire filling Hades with the shades of warriors. People of most enlightened nations still offer prayers to avert pestilence, and savages offer sacrifices for the same purpose.

The discovery of the efficacy of vaccination gave a great impetus to preventative measures. Great rewards have been secured from these efforts, but even now the work has been only commenced. I believe one-half of disease could be avoided.

The cause of disease being so widespread may be ascribed to ignorance and apathy. Ignorance is the greatest curse under which we labor. Could we only breathe pure air, drink pure water, eat pure food, think pure thoughts, a good many doctors would be forced to look to other employments.

Only a few points on this subject can be touched. Of these four cardinal sources of health, the fourth can be left to our clerical friends. In regard to food it is necessary that the authorities should examine into its adulteration. In regard to water and air the subject is more important. When we consider that one-sixth of the population of Illinois is in one city it becomes important. The sewage in cities is chiefly contained in water, in solution, and when properly aerated it becomes innocuous; hence unlimited water should be used. Chicago is fortunate in having but to pump it. The sewers in great part empty into the Chicago river, which is without current, and a part of them go to the lake. There is a better way to dispose of the sewage. Let the Illinois and Michigan canal be enlarged and so convey the debris to the Father of Waters, and by it to the Gulf of Mexico. The future of Chicago is great. It is but in its infancy yet, and in the gristle of its childhood. A very populous city will yet be built on the site it now occupies. When such a canal is built it will unite it to 2,000 miles of streams emptying in the Gulf of Mexico, and its lake commerce will be added to this. The expense of such an undertaking is a mere trifle when compared to the advantages that would be obtained. Liberal expenditures in this direction are a wise economy, as nothing is more deleterious than sickness. Our lakes are remarkable bod-

ies of water, having but few tributaries and but one outlet. It is fortunate that they are not surrounded by high inclosures, and hence are purified by the action of the sun and air.

Dr. Chas. Smart, of the National Board of Health, in speaking of the water supply of Memphis, says that of nineteen wells examined fourteen contain sewage matter. It is not strange that Memphis had an epidemic of yellow fever, thus laying an embargo on the commerce and health of its inhabitants. Had money been judiciously applied to render it sanitary, it would have cost much less than it has already done. The death rate in Memphis is 37.3 per 1,000, nearly one-half in excess of other cities. However, efforts are being made to improve its sanitary condition.

The dangers in cities arise from the non-ventilation of sewers and from deficiency in the air space and air supply of houses. In some cases it is due to the ignorance of the builder, and in others to criminal neglect. Catch basins should never be placed beneath houses, as they let out deleterious gases. Set bowls in houses should be carefully trapped with tubes, allowing the gases to escape above the roof of the house. The free ventilation of all sewers in houses and in streets is of the greatest importance. The best ventilation is a good chimney fire, and unfortunately now very few of our modern rooms are so heated. The Indian with a central fire in his tent could give many of his civilized brethren a hygienic lesson by which they might profit. High ventilation may be accomplished by window opening at the top, and if but one of either high or low ventilation can be obtained the former is preferable. With such surroundings an invalid need not go abroad.

Our schools and public buildings are all filled with death-bearing air, owing to improper ventilation. To commit suicide is criminal, but to undergo the dangers which common prudence might avert, is akin to suicide. A house with modern improvements is a complex machine, tending to produce death. Here simplicity is the best. We should spare no efforts to make our homes happy, healthful and pleasant. We should endeavor to render pure, air which has been contaminated by the sick, especially by contagious diseases, such as small-pox, yellow-fever, cholera, scarlatina, and perhaps syphilis, and government should render its aid here. None need have small-pox unless they so desire. All hold it to be the duty of the government to protect

its citizens from ignorance, accidents, crimes, etc, and why not then from pestilence? It is no violation of liberty to prevent an individual from spreading disease.

It was the profession that first asked for a law enforcing the announcement of births and contagious diseases in this State. On this account physicians should not object to it because of the absence of pecuniary compensation for such services. They ought to consider that if this involves a little trouble that, on the other hand, physicians are exempt from jury duty, and are granted many privileges.

The President concluded his address by suggesting that members of the Society be granted greater latitude in regard to their papers. If allowed to have them reprinted in journals before or after they were printed in the transactions, it would tend to make the Society better known, and many more copies of the transactions might be disposed of. He however wished all to remember that the profession must enlighten the people on hygienic laws, and insist upon seeing them fulfilled.

REPORT OF COMMITTEE ON PRACTICAL MEDICINE.

Dr. Caldwell, of Warren, had a paper on pneumonia and diphtheria in the Northwestern part of the State, read by Dr. Crummer, of Warren.

Pneumonia—Treats it by giving a mercurial cathartic to start with, and then salicylate of soda. *Veratrum viride* and *aconite* to some extent; also Dover's powder. In sthenic cases bleeds, and in pleurisy. Uses sometimes a jacket. Gives *digitalis* for feeble and irregular action of heart. Gives milk freely and does not care to move the bowels after the first cathartic.

Believes a lasting debt of gratitude due to Prof. Flint for showing its self-limitation. Twenty-five years ago, at the beginning of the writer's career, blood letting was pushed to a great degree in pleuro-pneumonia. The antimonial method followed, and after that Dr. Norwood's use of *veratrum* was the established manner of treatment. Few now administer it to the extent that he advocated. On reviewing the subject the writer found that as each method was about equally successful and as many were directly opposed, they must be equally worthless. During the past year he had two fatal cases of single pneumonia. In each the pulse was feeble at the outset. He thought this was the case in all cases of single pneumonia that proved fatal and

no doubt dependent upon some heart lesion. Hence, on this account, he has entirely discarded arterial sedatives in treatment. During observations made by him in hospitals in Vienna and Berlin, he never saw them used. But he did see the cases of pneumonia favorably treated by the use of wet sheets to the abdomen and chest.

He had a case of double pneumonia in an old man. He ordered quinine and digitalis, hot water to the feet and cold sheets (60° F.) to the chest, keeping the temperature down to 102° F. In 36 hours he was on the high way to recovery. This treatment is most important in children. Had a case of a child five years old, with a pulse varying from 140 to 150; perspiration 40 and temperature 105° F. Ordered cold applications, digitalis and quinine, the digitalis in small doses to give its stimulant action.

In regard to diphtheria was not satisfied as to whether it was of local or general origin. The local trouble in the throat, however, is in direct ratio to the severity of the case. The exception to this is in diphtheritic croup where cases are fatal and there is but a small exudation. Prior to 1860 diphtheria was unknown in this section, although many cases of membranous croup had been seen.

SUB-REPORT FROM JOE DAVIESS COUNTY, BY DR. CRUMMER, OF WARREN.

The year 1879 and the first quarter of 1880 show a great increase in diseases, especially pneumonia and diphtheria. There has been there localized epidemics of diphtheria, that could be easily traced to their source.

Mrs. B—— brought her boy, seven years old, from a diphtheria infected district, and in four days he had diphtheria well developed. Within a fortnight she received the assurance from her physician that she and her boy might visit without danger to others. By this means she infected eight cases of which six recovered and two died.

A minister had several children, suffering from diphtheria, and they recovered. In the meantime some families visited the minister and all were attacked. There were in all twenty-six cases with seven deaths.

In Rush township the people did not believe in its contagiousness. Two children went away from home for some time

and came back and returned to school. In a short time the whole school was infected, there being fifty-eight cases, attended with seventeen deaths. The families furnishing the greatest mortality were those living in badly ventilated houses and having not enough regard to cleanliness. The author thought that isolation should be prompt and thorough in practice. We may enforce it readily, and if we do this we may not only prevent the spread of the diseases but also enhance the chances of recovery; had little to say on the treatment and no specific to offer. Early treatment has a great bearing in the matter. Had noticed nasal complications in many cases, generally the worst types; also glandular enlargements and albuminuria almost a constant factor. He thought that disinfectants should be firmly used, locally and generally. The most efficient medicine to remove the exudates, in his opinion, is tannic acid. For the nasal complications salicylate of soda or carbolic acid solution injected. As to internal remedies iron, quinia, potassium chlorate. Has found bromide very good when given according to Thompson's formula:

R. Bromine.....	℥ j.
Potassii Bromid.....	℥ ij.
Aqua ad.....	℥ iv.
M. F. Sol.	

Sig. Two drops in sweetened water at a dose.

It is superior to benzoate of soda or to the sulphites or sulpho-carbolates. Would not hesitate to perform tracheotomy in cases of diphtheria when indication existed.

As regards pneumonia, there have been many cases, but as a rule these were mild in character. He endeavored to gather methods of treatment. One physician uses saline cathartics, Dover's powder and massive doses of quinia, and perhaps carbonate of ammonia. Later on compound tincture of bark, and then turpentine by inhalation and alcoholic stimulants.

Another in infantile or lobular pneumonia never uses veratrum viride. He uses turpentine and digitalis, and blisters in the stage of resorption. His mortality is light.

Another who has a five per cent. death rate uses no blisters whatever. Still another does blisters.

The author had 25 cases last year, these being distributed as follows: Under five years, 7; over five and under ten, 5; over ten and under twenty, 4; over twenty and under fifty, 8; over

fifty and under seventy-four, 6; total, 25. Most of these cases were mild. The most troublesome symptoms were high temperature and weak heart's action. Did not give veratrum; did not blister or bleed. Favors a supporting and stimulating plan of treatment; alcoholic stimulants are the best, and should be given directly under the care of the physician and carefully watched, as the danger is not to give too much, but rather too little. In no other disease, hardly, is so much careful attention necessary as in pneumonia, at the critical stages, especially. Did not think carbonate of ammonia could be substituted for alcohol, as it is only a transient stimulant.

Scarlatina and measles are not known in Jo Daviess County. Malaria was greater in the fall of 1879 than for many years previously. Sulphate of quinine still gives the best results. In dilute hydrobromic acid we have a good solvent, which at the same time prevents the bad influence of quinine on the cerebral circulation.

SUB-REPORT ON PAROTITIS BY DR. F. B. HALLER, OF VANDALIA.

During 1879 scarcely a child or adult in his section of country escaped, and there was no family, some of whose members were not attacked. Among the adult males there was metastasis to the testicles as a rule. In females also there was some. In young boys there was a metastasis to the brain. There were some very grave cases, in which the temperature rose to 105° F.; pulse very rapid; tongue dry, soon becoming brown and cracked; breath very foetid; pain and swelling in testicles simultaneous with that in parotid. It was not unusual for both testes to be affected.

Looking over the literature of mumps, this epidemic must have been a severe one. According to some authors this disease is regarded as a light affection, and local determination is a favorable omen. Do not agree with them. The mild cases were those having only the glands of the neck involved; the worst in which both the testes and the parotids were involved. The metastasis to the testes was not favorable and often destroyed one.

The treatment was cathartic. Gave a saline cathartic, warm applications to the neck and injunctions to remain indoors. Gave gelsemium, aconite, veratrum, tonics, stimulants, in the severer forms. Where metastasis took place ordered mustard to the parotid and flaxseed to the testes till resolution took place.

When the brain was affected counter-irritation to the spine, etc. Did not have a fatal case.

DISCUSSION.

Dr. Byrd, of Quincy, had seen many cases of diphtheria, the last being his own child. The treatment he followed was to use a spray of lime water, chlorate of potash and iron alternately, and he had been successful; had cases where severe epistaxis existed, and had never lost a case, using that method.

Had a Jewish family come under his care. The oldest boy, Emmanuel, he treated with strong applications of nitrate of silver. He became better under the treatment, but a severe epistaxis set in and he died. His brother Solomon took sick and in a week was well. A sister, Zuleika, died; Albert, another member of the family, died in about twenty days. These he did not treat. A niece, a young lady, he treated with spray, and she recovered. A family called him in consultation with a physician attending. The attending physician was using quinine, salicylic acid and brandy. Suggested Dr. Billington's treatment. Was called some time after and saw one child had died and two were dying. The man and wife and remaining child were low. The brother-in-law had called for the former attending physician, who had refused to go. Applied the treatment I had recommended and saved all three, who are now living, although it is two years since. On this account I must say that I have some confidence in the treatment of diphtheria.

Dr. Hollister, of Chicago, wished the medical profession would take up diphtheria and study its pathology. Evidently there is an involvement and necrosis of the sub-mucous tissues. The question to resolve is, is there developed in that tissue an organic growth multiplying and causing necrosis; or is the presence of bacteria accidental? Have examined a number of cases of diphtheria, and have invariably found the *globus bacteria*. When the kidneys are involved and their function arrested, we find a blocking up of the tubuli uriniferi with bacteria. Is it probable that there is a germ development first arising in the fauces and developing in the blood, being carried to the capillaries, and by this means acting on the nervous centers?

With regard to local treatment the physician, after the first severe onset is passed, derives some satisfaction from it, and settles down to the use of some remedies which he thinks successful in his hands. If we look at the selection of remedies they

are such as destroy organic growths. My hobby, perhaps, is sub-sulphate of iron. Its astringency and effect on organic growths by destroying them prejudice me in its favor. It leaves a simple ulcer to treat and the disease is under our control then. The subject is one of vast importance, and it seems to me that every individual practitioner should devote his undivided attention to it.

Dr. Frank Davis, of Chicago—Dr. Hollister has expressed views similar to mine. I do not feel settled as to whether the primary disease is local and secondarily constitutional, or *vice versa*. I never saw a case early enough to notice local without general involvement. High fever, a rapid pulse, etc., in my experience, precede the presence of exudates. That there is an extremely debilitating and poisonous constitutional disease, there is no doubt. In a certain proportion of cases no form of treatment will save the patient, on account of the malignancy of the attack. Again there are other cases that will get well almost without treatment. The cases are numerous which require but little management, although that must be good. Have no faith in local treatment; look mainly to constitutional remedies. Tincture of chloride of iron, quinine in small and frequent doses, are what I use. In swallowing it, it performs the effect of a local medicine as far as the iron is concerned.

Diphtheria will be found closely allied in pathology to scarlet fever and erysipelas. There are cases combining the symptoms of both, and members of a family may get any of these.

Dr. ——— What do you think of croup?

Dr. F. Davis, of Chicago—Membranous croup has nothing to do with diphtheria.

As the case progresses if there is extreme prostration and symptoms tending to paralysis, give small doses of strychnia. Watch closely while giving digitalis, spirits of nitre or better, jaborandi, to counteract the albuminuria, if there be a tendency in that direction. In some cases the throat becomes involved to such a degree that swallowing is impossible. In young children I let them swallow their medicine, and for nourishment rub in the skin cod liver oil from 4 to 6 ounces in twenty-four hours. Had a patient to live a week in this manner; there was 20 grains of quinine in every 4 ounces of oil. The patient did not take a particle of nourishment during that time. I throw this out as a suggestion in cases where patients cannot be nourished.

Dr. H. Z. Gill, of Jerseyville—None will question the importance of the discussion. A paper I will read will show more clearly my opinions on this. The place of diphtheria in nosology is not well fixed at this time. We do not know exactly where it belongs, nor can we tell positively from any investigations or observations its causes. In reference to treatment I think Dr. Billington has done good work in publishing his cases, and his treatment is very successful, and if followed out carefully will, no doubt, be of great benefit.

Dr. C. Parks, of Chicago—I suppose it is accepted as a fact that bacteria are the cause of diphtheria. It is pretty well settled that it is a specific disease depending on that organism. I have come to the conclusion that 12 per cent of cases are fatal and 88 per cent recover, no matter what remedies you use. In regard to remedies I agree with Dr. Gill that the disease is local and constitutional, and ought to be treated both ways. I have no doubt that many cases have been greatly benefitted if not cured by local remedies. Equal parts of glycerine and liquor of persulphate of iron will not prevent constitutional results, but nevertheless helps a good deal. I have used, at the back part of the nose and throat, a weak solution of boracic acid by means of a syringe, the acid being dissolved in warm water. I cannot say that diphtheria is a local disease. The disease situated locally disappears from those parts and re-appears lower down. It becomes general and is followed by paralysis of the cardiac nerves, etc. It is absurd to treat it locally without general treatment, and the skin, rectum or anything else may be used as an absorbent. I think it requires local treatment in each case, and the best of constitutional.

Dr. J. S. Jewell, of Chicago—In treating diseases, this one especially, there is not stress enough laid to get at the disease early and do the best work during the first eight to ten hours. If any local treatment is to be applied, do it at first. When prompt treatment would have saved a patient, many a physician lets him succumb. Hundreds of children are sacrificed because they are not separated and kept from school, and not permitted to be approached by any one unless it be positively necessary. Every man should keep out of sight the stage machinery of argument when he calls on his patients. I verily believe that hundreds of lives could be saved annually by attending to these points, which, though not new, are important. Local treatment

is to be used assiduously during the first twelve hours. Let it be understood in your community that a doctor must be sent for immediately.

Dr. Ingalls, of Chicago—What is the treatment?

Dr. Jewell, of Chicago—Any treatment that the physician thinks good; for instance, the iron method mentioned, thoroughly applied. Many times an attack can be cut short if attended to soon enough.

Dr. Hollister, of Chicago—What is your constitutional treatment?

Dr. Jewell, of Chicago—My constitutional treatment is vigorous, especially bromine, iron, quinine, etc. No matter how you give it, and don't wait till the pulse is up and nervous symptoms come on, but begin early and separate them.

Dr. Steele, of ————Do you separate them from bacteria?

Dr. Jewell, of Chicago—Children ought to be separated. Don't sacrifice your patients on account of speculative views.

Dr. Crummer, of Marshall—There is a point in the separation of diphtheritic patients. It must be done at an early period. Now in scarlatina we need not be so prompt. I have had good luck with diphtheria, but think that the severity of the epidemic had then worn itself.

Dr. Byrd, of Quincy—I believe in lime water and carbolic acid treatment. The first dissolves the membranes and the other is antiseptic. I forgot to mention how to thoroughly cleanse the nostril. I put a cork in the nostril and use a half ounce syringe and let in a gentle stream, first of salt and water.

Dr. Wadsworth, of Collinsville—Why is it, if bacteria be the cause we claim, that it relinquishes its hold after a time and becomes less strong?

Dr. Crummer, of Marshall—The difference of susceptibility of different individuals is the cause, and the least susceptible are the last to succumb, and naturally are more able to make a successful struggle with the disease.

[TO BE CONTINUED]

NORTHWEST MISSOURI MEDICAL ASSOCIATION.

The nineteenth quarterly meeting of the District Medical Society of Northwest Missouri was held in St. Joseph, Mo., commencing at 11 A. M., the President, Dr. A. Goslin, in the chair; Dr. D. I. Christopher, Secretary.

On calling the roll, the following members responded to their names: Drs. T. M. Lowry, W. H. Bryant, W. I. Heddens, H. Trevor, E. A. Donelan, C. J. Siemens, Thos. Doyle, J. Geiger, J. M. D. France, J. M. Richmond, S. F. Carpenter, E. M. Manning, B. L. G. Stone, J. S. McAdow, J. T. Berghoff, J. M. Huffman, F. A. Simmons, J. B. Howard, W. B. Craig, B. P. Williamson, J. R. Kearney, A. B. Allen, A. P. Busey, C. F. Knight, J. D. Smith, P. J. Kirschner, J. W. Heddens.

The minutes were read and approved.

The committee made the following report on programme for afternoon session:

2 P. M.—Paper, by Dr. W. H. Bryant. 3 P. M.—Paper, by Dr. J. W. Heddens. 4 P. M.—Paper, by Dr. J. Leigh, and reports of cases, exhibition of specimens and voluntary contributions.

Evening session: Paper, by Dr. W. B. Craig. Voluntary papers and discussion of regular subject, viz: "Alcohol as a Remedial Agent."

The society adjourned to 1:30 P. M.

AFTERNOON SESSION.

Society met pursuant to adjournment, President Dr. A. Goslin in the chair; Dr. D. I. Christopher, Secretary.

Dr. Bryant not having a paper, reported two cases of vaginismus, with treatment; also presenting a lot of tubes for the dilatation of vagina in this disease.

Dr. J. W. Heddens read a very interesting paper on "Strictures of the Urethra," claiming masturbation as a cause second only to gonorrhœa. Some remarks were made on the paper by Drs. Richmond and Geiger.

Dr. Leigh being absent, the rules, on motion, were suspended to allow Dr. Allen to present a case. It was moved and carried that a committee be appointed to examine the case and report to the society their opinions for discussion. The Chair appointed Drs. Geiger, Craig and Richmond.

While the committee was out, Dr. Doyle reported a case of uterine retroversion, with contracted canal, and upon the introduction of sponge tents, a flow of milk was produced. This was repeated two or three times with the same results, the flow ceasing during intervals.

Dr. McAdow also reported a case of the production of the lacteal fluid by the manipulation of the breasts by a child.

Dr. Stone reported some cases resembling diphtheria and scarlatina.

The committee on Dr. Allen's case reported chronic synovitis with astitis of the ankle-joint. The patient was then brought before the society for examination, following which a number of the members made remarks on the cause, diagnosis, treatment and prognosis.

Dr. Geiger presented a case of dislocation of ulna and radius backwards of ten weeks' duration.

On motion the society adjourned to 7 P. M.

EVENING SESSION.

The society met pursuant to adjournment, the President in the chair; D. I. Christopher, Secretary.

Dr. Craig read a scientific paper on "Gastro-Elytrotomy," which was received. The paper was discussed by Drs. Richmond, Geiger and Goslin.

Dr. Simmons also read quite an instructive paper entitled, "Is Phthisis Curable?" calling the attention of the society to the new treatment by the benzoate of soda spray and compressed air. The paper was received by the society, and discussed by the following members, viz: Drs. Simmons, Christopher and Doyle.

The regular subject for discussion, viz: "Alcohol as a Remedial Agent," was taken up and discussed by Drs. Manning, Richmond, Stone, Doyle, Geiger, Siemens, Donelan, Christopher, Heddens, Wm. Simmons and Craig.

The Executive Committee reported the following programme for the next quarterly meeting: Essayists—Drs. W. H. Bryant, J. Leigh, J. M. Huffman, A. Goslin, P. J. Kirschner, E. M. Manning. Subject for discussion, "Pneumonia."

After some remarks by the President for the good of the members, on motion the society adjourned.

A. GOSLIN, M. D., President.

., Recording Secretary.

Correspondence.

HYDRATE OF CHLORAL.

Dr. H. H. Kane, of New York City, specially requests members of the profession with any experience whatever in the use of hydrate of chloral to answer the following questions, and give any information they may possess with reference to the literature of the subject:

1. What is your usual commencing dose?
2. What is the largest amount you have administered at one dose, and the largest amount in twenty-four hours?
3. In what disease have you used it (by the mouth, rectum, or hypodermatically), and with what results?
4. Have you known it to affect the sight?
5. Have you ever seen cutaneous eruptions produced by it?
6. Have you known it to affect the sexual organs? If so how?
7. Do you know any instances where death resulted from or was attributed to its use? If so, please give full particulars as to disease for which given; condition of pulse, pupils, respiration, and *temperature*; manner of death; condition of heart, lungs and kidneys; general condition, age, temperament, employment, etc., etc., etc. If autopsy was held, please state the condition there found.
8. Have you seen any peculiar manifestations from chloral—as tetanus, convulsions, or delirium?
9. Do you know of any cases of the chloral habit? If so, please state the amount used, the disease for which the drug was originally administered, the person's temperament, and the present condition of the patient with reference to the condition of body, mind, in general, and the various organs and systems in particular.

Physicians are earnestly requested to answer the above questions *fully*, especially 7 and 9, in order that the resulting statistics may be as valuable as possible.

All communications will be considered strictly confidential, the writer's name not being used when a request to that effect is made. Address all letters to Dr. H. Kane, 191 West Tenth Street, New York City.

Editorial.

THE SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

This Society meets in Shawneetown on the 23d of this month. As this Journal is its official organ, its proceedings will be laid before our readers. Drs. John T. Hodgen, C. H. Hughes and William Dickinson, of this city, will each deliver popular addresses.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

THE American Laryngological Association held its second annual session in New York City on May 31st, June 1st and 2d. It numbers now about twenty members, who reside in different parts of the Union, but most of them hail from the Atlantic States. Its transactions this year will form quite a large and valuable volume. They will first appear in the *Archives of Laryngology*, a new quarterly devoted to Laryngology exclusively, issued first in last April, and published by G. F. Putnam's Sons, of New York. A synopsis of the entire proceedings, with criticisms on each article, will be placed before our readers as fast as they appear in the *Archives*.

THE AMERICAN MEDICAL ASSOCIATION.

This fast growing association met in New York City on June 1st, 2d, 3d and 4th. We have not the room nor time to give even a short synopsis of its proceedings in this number of the JOURNAL, but in the next issue we will give our readers the outline of the papers and discussions.

This was one of the largest and most successful meetings that it has been our pleasure to attend. The importance of the papers and the discussions were far superior to the average of its previous meetings. Its President, Dr. Sayre, made several excellent recommendations. One of the best, in our judgment, was that the proceedings be hereafter published in journal form,

instead of their being eternally buried in an illy bound book that is given to the hearers *only*. This is following out *our own* idea of the manner in which the proceedings of every medical society should dispose of their transactions. Replies to papers could be made, after the adjournment of the meeting, if published in this way, to the edification of every hearer and reader, and in this way not only keep up but heighten the interest of the meeting.

Our readers will be pleased to learn that Missouri has been honored by placing one of our most distinguished surgeons in the Presidential chair, Prof. John T. Hodgen. In order to best show our appreciation of this honor, we of this State should resolve that at the next meeting, which takes place at Richmond, Va., we will have the largest delegation of any Western State. Every county in which there is no medical society should, as soon as possible, complete such an organization, so that from every county we can, next May, send delegates to Richmond.

YELLOW FEVER.

An elaborate and thorough treatise on the nature and epidemic causes of yellow fever is now in press, and will be published by George O. Rumbold & Co. by the first of August next. Its author is our townsman, Dr. C. Spinzig, well known to the profession from previous publications, whose mode of investigation, it gives us pleasure to state, is always strictly scientific and most profound. He gives for every point of argument fundamental facts, which are, in this case at least, convincing and conclusive. Further, the author has spared no pains to obtain all reliable and statistical data, in order to lay before the reader a complete history of the great epidemic of 1878, and has also included all known facts of the epidemics of 1873, 1876 and 1879. It promises to be not only of great interest, but to be an indispensable part of every medical man's, sanitarian's, and scientist's library, as the subjects, Etiology and Prophylactics, are treated of in an original manner, and the views are entirely different from those generally held by the profession.

Book Reviews.

ELEMENTS OF MODERN CHEMISTRY. By ADOLPH WURTZ, Professor of Chemistry of the Faculty of Medicine of Paris, etc., Translated and Edited by Wm. H. Green, M. D., formerly Demonstrator of Chemistry in Jefferson Medical College. [Philadelphia: J. B. Lippincott & Co., publishers.]

This is a work of more than usual merit. Having carefully read much of it, I am satisfied that as a whole, it has no superior, hardly an equal. The student as well as teacher, will find it invaluable, indeed indispensable. Though in some particulars it is not so full as others, yet in other particulars it is superior. If the first principles of the science were as fully discussed as in Barker, the work would still be more valuable and desirable. As it is, we cannot commend it too highly.

H. CHRISTOPHER.

A TEXT BOOK OF PHYSIOLOGY. By M. FOSTER, M. A., M. D. From the Third and Revised Edition; with Notes and Additions by EDWARD T. REICHERT, M. D. [Philadelphia: Henry C. Lea's Son & Co. 1880.]

This is a reprint of the edition of Dr. Foster's Physiology, recently noticed in the JOURNAL. It is difficult to understand what object or excuse there is for this kind of republication. Dr. Foster has written an admirable book and procured its publication in admirable style and placed it upon the American market. He certainly should be allowed to reap the benefits of his labor. Dr. Reichert, by republishing the work and offering it for sale at lower rates, deprives Dr. Foster of a part of these benefits. Whatever additions Dr. Reichert may have made are of no consequence as to the matter in question. The principle is the same—the result being, that the sale of Dr. Foster's book is diminished by the same book being thrown upon the market by another and cheaper publishing house. As a matter of fact the additions made to this book are not physiological additions, but consist merely in the addition of a few pages of anatomy and therapeutics. In the advance of science and division of labor, anatomy and therapeutics have become separate studies of themselves, and since so many fine works are written upon these subjects it is difficult to see why this matter should be injected into our works on physiology. This is one of the good features of Dr. Foster's book, that he deals only with physiological facts and theories, leaving other subjects to the departments to which they belong. No one will deny that the knowledge of the anat-

omy of the eye is necessary to a knowledge of its physiology, but it does not follow that information on both these subjects should be given in the same book. I see no other object in these "additions" than to give the book the appearance of greater simplicity in the eyes of American students. One feature, however, in this work is deserving of praise, viz: the addition of a large number of valuable illustrations. And equally praiseworthy is the omission of the various large figures of instruments illustrating the vascular and nervous mechanisms, etc., which appear in the original work. H. C. FAIRBROTHER.

A SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M. D., F. R. S. With numerous additions and illustrations. By HENRY HARTSHORNE, A. M., M. D. In three volumes. Vol. III, Diseases of the Digestive Blood, Glandular, Urinary, Reproductive, and Cutaneous Systems. Pp. 986; 8vo. [Henry C. Lea's Son & Co. 1880.]

This is the third volume of this incomparable work on the practice of medicine. A mere statement of the writers of the articles that compose the book, is a sufficient recommendation of its worth. The diseases of the Stomach is written by Wilson Ford, M. D., F. R. S., and occupies 49 pages. Diseases of the Mouth. By Charles E. Squarry, M. D., occupies 11 pages. Mr. Squarry also is author of the Diseases of the Fauces, Pharynx and Esophagus. Diseases of the Intestines is written by Drs. Wardell, Bristowe, Begbie and Goodeve. Diseases of the Peritoneum, by Drs. Wardell and Bristowe. Of the Liver, by Drs. Anstie, Maclean, Goodeve, Begbie and Wardell. Diseases of the Blood, Glandular System, by Drs. Wardell, Grower, Wilks, Bergel, Hartshorne and Brinton. Diseases of the Urinary Organs, by Drs. Basham, Roberts, Beck and Thompson. Diseases of the Female Reproductive Organs, by Drs. Hewitt, Priestly, Williams and Hartshorne. The Diseases of the Cutaneous System, by Mr. A. B. Squire. These three volumes contain the latest and most advanced views in the practice of medicine that are known in the civilized world.

Books and Pamphlets Received.

Aspiration of the Knee-joint. By Henry O. Marcy, A. M., M. D. [Reprinted from the Transactions of the American Medical Association, 1879.]

Fifty-third Annual report of the Inspectors of the State Penitentiary for the Western District of Pennsylvania. For the year 1879.

The New Anæsthetic, Ethyl Bromide; Or Hydrobromic Ether.

Lecture on Pain and Anæsthetics, Delivered by Invitation before the Class of the Pennsylvania College of Dental Surgery, Philadelphia, Feb. 6th, 1880. By Laurence Turnbull, M. D., [Reprinted from "*Medical and Surgical Reporter*." March 6th, 1880.]

Annual Report of Saint Louis Insane Asylum for the year 1878-9. By Chas. W. Francis, Health Commissioner. [Saint Louis, 1879.]

Diseases of the Maxillary Sinus. By E. Borek, M. D., of St. Louis. [Reprinted from the *Indiana Med. Reporter*.]

Thirty-ninth Annual Announcement of the St. Louis Medical College. Session of 1880-81 and Catalogue for 1879-80.

Lunacy Reform. III. Our Asylums as seen by a competent Foreign Visitor. [Reprinted from the *Archives of Medicine*. Vol. III. No. 2. April 1880.]

The Relation of Membranous Croups to Diphtheria. By J. O. Roe, M. D., of Rochester, N. Y. [Read before the Monroe County Medical Society.] [Reprinted from the *Buffalo Medical and Surgical Journal*, March 1880.]

The Prospective Advantages of Baltimore as a Medical Centre. By John Van Bibber, M. D., Reprint from *Maryland Medical Journal*. April 1880. Baltimore, 1880.

Common Mind, Troubles and the Secret of a Clear Head. By J. Mortimer-Granville, M. D., M. R. C. S., etc., Edited with Additions, by an American Physician, Philadelphia: D. G. Brinton, 115 South 7th street, 1880. 1 vol. crown, 8 vo., cloth; pp. 185.

A Case of Intra-uterine Ichthysis, By Wm. R. Smith, Sr. M. D., Cairo, Ill., (with three wood cuts.) Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*. Vol. XIII. No. 11. April, 1880. [New York: William Wood & Co., 27 Great Jones street, 1880.]

AMERICAN HEALTH PRIMERS—Our Homes. By Henry Harts-
horne, A. M., M. D. [Philadelphia: Presley Blakiston, 1012
Walnut Str., 1880.] For sale in St. Louis by the Hildreth Pub.
Co., 407 N. 4th Street.

A Practical Hand-book of Medical Chemistry applied to Clin-
ical Research and the Detection of Poisons, Partly based on
"Bowman's Medical Chemistry." By William H. Greene, M.
D., pp. 310. Large 16 mo. [Philadelphia: Henry C. Lea's Son
& Co. 1880.]

Headaches; their Nature, Causes and Treatment. By Wil-
liam Henry Day, M. D. Third Edition, with Illustrations, pp.
322 16 mo. [Philadelphia: Lindsay & Blakiston. 1880. For
sale in St. Louis by H. R. Hildreth & Co., 407 N. 4th Street.]

Sore Throat, its Nature, Varieties and Treatment; Including
the Connection between Affections of the Throat and Other Dis-
eases. By Prosser James, M. D., Fourth Edition, Illustrated
with Hand Colored Plates. pp. 318. 16 mo. [Philadelphia:
Lindsay & Blakiston, 1880. For sale in St. Louis by H. R. Hil-
dreth & Co., 407 N. 4th Street.

Dessicated Blood for Rectal Alimentation and other Liter-
ature on the subject of Alimentation per Rectum. Reprinted
from *Medical Record* and from papers read before the New
York Academy of Medicine, Therapeutical Society and Gynæ-
cological Society. Detroit Michigan, 1880.

Transactions of the Society of the Alumni of the Medical Col-
lege of Ohio. Published by order of the Society. [C. S. Mus-
croft, M. D., Secretary. 8 vol. pp. 176 mo. 1880.]

On the Removal of Foreign Bodies From the Eye, with four
cases. By Charles Stedman Buli, M. D. Reprinted from the
Archives of Ophthalmology. Vol. IX. No. 1. March, 1880.

The Hysterical Element in Orthopædic Surgery. By New-
ton M. Shaffer, M. D. pp. 66; 8 vo. [New York: G. P. Put-
nam's Sons.]

Annual Report of the Managers of the Western Pennsylvania
Hospital for 1879. Medical and Surgical Department.
Twelfth Ward, Pittsburgh, Pa.

Modern Medical Therapeutics; A Compendium of Recent
Formulæ and Specific Therapeutical Directions. From the
practice of eminent contemporary physicians, American and for-
eign. By George H. Napheys, A. M., M. D., etc. Seventh edi-
tion, enlarged and revised. pp. 604; 8 vo. [Philadelphia: D.
G. Brinton.]

Homeopathy; What is it? A Statement and Review of its
Doctrines and Practice. By A. P. Palmer, A. M., M. D. pp.
204; 8 vo. [Detroit: Geo. S. Davis, Medical Publisher.]

Remarks on Rectal Feeding in Disease. By William Potter, M. D., Batavia, N. Y. [Reprinted from the *Medical Record*, April, 1880.]

Thomas Keith and Ovariectomy. By J. Marion Sims, LL. D. With portrait. [Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*. Vol. XIII, No. 2, April, 1880. [New York: William Wood & Co.]

Third Report of the Pennsylvania Free Dispensary for Skin Diseases, Philadelphia, for the medical relief of the poor affected with diseases of the skin. Supported by voluntary contributions.

Caries of the Ankle in Children. The results of Expectant Treatment from a study of Thirty Cases. By V. P. Gibney, A. M., M. D. A paper read at the New York State Medical Society, February, 1880. [Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*. [New York: Wm. Wood & Co.]

Periarthritis: A Study of Forty-seven Cases. By V. P. Gibney, A. M., M. D. Reprinted from the *New York Medical Journal*, May, 1880. [New York: D. Appleton & Co.]

The Black Arts in Medicine, with Anniversary Address by John D. Jackson, A. M., M. D. Edited by L. S. McMurtry, A. M., M. D. pp. 84; 12 mo. [Cincinnati: Robert Clarke & Co.]

Aids to Physiology. By B. Thompson Lowne, F. R. C. S., Eng. [New York: G. P. Putnam's Sons.]

Aids to Chemistry. Part I, Inorganic; the non-metallic elements. By C. E. Armand Semple. Part II, Inorganic. the Metal. By C. E. Armand Semple. Part III, Organic. By C. E. Armand Semple.

Aids to Materia Medica and Therapeutics. Part II (double part), the vegetable and animal substances. By C. E. Armand Semple.

Pathogenetic Outlines of Homœopathic Drugs. By Dr. Med. Carl Heinigke, of Leipzig: Translated from the German by Emil Tietze, M.D., of Philadelphia. Pp. 576, 8vo. Boericke & Tafel. [New York and Philadelphia, 1880.]

Lessons in Gynecology. By William Goodell, A. M., M. D., with ninety-two illustrations. Pp. 454; 8vo. [Philadelphia, Pa.: D. G. Brinton, 1880.]

A Treatise on Oral Deformities, as a Branch of Mechanical Surgery. By Norman W. Kingsley, M. D. S., D. D. S.; with over 850 illustrations; 8vo.; pp. 541. [New York: D. Appleton & Co., 1880.]

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—MAY, 1880.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	45.0	73.5	18	67.0	87.5
2	53.0	78.5	19	69.0	86.0
3	54.0	79.5	20	64.0	78.5
4	60.0	76.0	21	63.0	73.0
5	59.0	83.5	22	61.0	82.0
6	64.0	89.0	23	65.5	85.0
7	66.5	90.0	24	65.5	90.0
8	68.5	84.0	25	73.0	86.5
9	61.0	77.0	26	71.0	88.0
10	71.0	75.5	27	65.5	79.0
11	69.5	77.0	28	61.0	77.5
12	61.0	84.0	29	61.5	79.0
13	64.0	84.0	30	61.0	77.0
14	59.5	75.5	31	66.5	86.0
15	54.0	77.0			
16	57.0	82.5	Means	63.5	
17	68.0	88.0	Monthly Mean	71.8	81.2

Quantity of rain, 3.28 inches.

MORTALITY REPORT.—CITY OF ST. LOUIS.

FROM MAY 8, 1880, TO MAY 29, 1880, INCLUSIVE.

Ovarian Tumor	1	Leucocythæmia	2	Convulsions & Trismus Neonatorum	30	Scorbutus	1
Measles	5	Inanition, Want of	6	Hydrocephalus and Tub. Meningitis	4	Apoplexy	4
Syphilis	1	Breast Milk, etc.	6	Meningitis & Encephalitis	8	Cyanosis and Asphyxia	3
Scarlatina	4	Alcoholism	5	Other Diseases of the Brain and Nervous System	11	Premature Birth	4
Pyæmia & Septicæ	0	Cancer and Malignant Tumor	5	Cirrhosis of Liver and Hepatitis	7	Deaths by Suicide	2
Erysipelas	2	Phthisis & Tuberculosis, Pulmon.	30	Total Deaths from all Causes	324	Deaths by Homicide	9
Diphtheria	3	Bronchitis	4	Total Zymotic Diseases	80	Congen Deor'ty.	5
Membran's Croup	2	Senility	4	Total Constitutional Diseases	80	Total Local Diseases	144
Whooping Cough	3	Pneumonia	28	Total Develop'tal Diseases	16	Deaths by Violence	12
Diabetes Mellitus	1	Heart Diseases	13				
Cholera Infantum	22	Other Diseases of Respir'y Organs	16				
Typhoid Fever	5	Metro-Peritonitis	1				
Cerebro Spinal Fe.	1	Marasmus—Tabes Mesenterica and Scrofula	18				
Remittent, Intermittent, Typho-Malarial, Congestive & Simple Contin'd Fevers	6	Vermeæ	1				
Puerperal Fevers	2						
Diarrhoeal Diseases	12						

CHAS. W. FRANCIS, Health Commissioner.

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Original Contributions.

ARTICLE XX.

ANEURISM OF THE FEMORAL ARTERY. BY JOHN T. HODGEN,
M. D., of St. Louis, Mo.

In 1868 M. W., a music instrument maker, while using a small knife, thrust it into the right thigh to the middle of the inner side. The cut was transverse. The wound bled freely, the patient was much weakened, but the flow was checked readily and bled no more. In 1871 a pulsating tumor, having a marked thrill and a distinct murmur, was observed at the site of the wound. I saw the case with Dr. Hermann. From the impulse thrill, the loud murmur and vibration along the femoral vein, we concluded that it was a case of aneurismal varix. As the patient had no special discomfort from it, he was advised to let it alone. I saw the patient a number of times between that day and the present. The tumor was gradually enlarging, and during the past year, the whole limb has become enlarged and painful. Dr. Hermann advised him to wear an elastic stocking extending to the groin.

February 8, 1880, the tumor was as large as the head of a child one year old, and although it extended down to a point opposite the original wound in the thigh, its bulk was situated

above that point, and was decidedly on the inner side of the thigh, but it presented also in front.

The pulsation, thrill and murmur were very distinct. The femoral artery was large, and could be traced on the front of the tumor as a distinct pulsating line. The vein also was distinctly recognized, and could be distinguished from the artery by the presence of an intense thrill. Both were found enlarged as they were continuous with the iliac vessels. February 8, 1880, with a hope of establishing a free collateral circulation, I applied pressure by means of a weight to the artery as it passed over the pubis. This was continued five hours. At the end of that time, the tumor was firm; pulsation had ceased; murmur could not be heard. There was no thrill except when the finger was placed directly over the vein. Each vessel together with the artery could be traced distinctly down to the lower part of the tumor.

February 9th, tumor remained firm; was less so on the 10th; pulsation gradually extended over a large surface, until the 15th, when it was found pulsating as freely, and was as soft as it had been before the application of pressure. On this day the pressure was again applied for five hours, with the same immediate effect as on the first occasion.

On the 22nd the pressure was repeated and continued during the same period. On the 29th pressure was again applied. Less firmness followed of tumor than during and after the first applications. On the 20th of March the limb was hot, and more swollen; 29th of March after consulting with Drs. Gregory, Mudd and Hermann, and assisted by Drs. Luedeking and Dewey, I ligated the femoral artery, as it passed in front of the tumor and four inches below Poupart's ligament. The thrill, murmur and pulsation were diminished though they still continue quite distinct.

A distinct line of pulsation passing along the inner side of the artery ligated, indicated the presence of another vessel. On passing the finger on the lower end of it, it was found it pulsated above. It was determined to ligate this vessel also. It was readily reached by the same cut, and a ligature passed around it. The last vessel ligated was about the size of the ring finger. The first about the size of the little finger. On tightening the ligature on the second vessel, pulsation, thrill and murmur entirely disappeared, the tumor diminished rapidly, and in a few moments the skin was quite lax and wrinkled. The

limb was wrapped in flannels. Two hours later the temperature to the hand seemed below the normal standard. Six hours afterwards the limb appeared to be normal in temperature and was very much wrinkled. Patient comfortable and free from the painful tension of which he had complained before the operation. He took during the next twenty-four hours a grain of morphine, and was comfortable. Temperature good. Has taken some soup, and relished it. Ordered five grains of quinine every eight hours. No fever.

March 31st—Progressing favorably.

April 1st—Limb a little more swollen, with some general fever and heat of the limb.

April 2d—Pulsation is felt in the line of the ligated vessels, extending down to the point of ligation.

April 3d—The toes are blue and cold. Quinine was given, five grains every six hours.

April 4th—Blebs on the ankle. Foot cold.

April 5th—Condition about as on the 4th, with the odor of decomposition.

April 6th—General condition has been good since the operation except a little fever. Pulse 94.

April 6th, 8 p. m.—Patient perspiring freely and has an anxious, pallid look. Pulse is wavy. Continued the quinine. The patient has taken a fair quantity of food every day since the operation.

April 7th—Mortification extending up the leg. General condition same as on the 6th.

April 8th—Patient is cheerful—fair appetite—sleeps well. Foot still withering. Tumor a little smaller.

April 12th—General condition good. Patient cheerful; eats well. Pulse 80. Taking quinine, five grains every five hours. Limbs separating six inches above ankle. Tumor smaller. Pulsation less in the vessels.

April 16th—Condition much the same as before mentioned. Pulse has ceased in the vessels. The ligature separated. Dead foot was removed at the ankle-joint without the knowledge of the patient.

April 20th—Condition less favorable. Strength has appreciably failed. Appetite not so good. Wound made for ligation not healed. Remains clean. Furnishes healthy pus. Soft parts

have separated from the bone of the leg, leaving them exposed five or six inches.

April 23rd—Has bed sores on the sacrum. Dr. Hermann put the patient in water bath—temperature 98. Rests well in the bath.

April 24th—Slept well last night.

April 25th—Passed a good night and slept well. General condition more favorable. Suffering from a little twitching in the right limb.

May 4th—Bath continued. Water partly removed each day and renewed.

May 5th—Water entirely changed to-day. Patient was taken out and placed on the bed. Improved in strength and flesh. Wound made for ligation is contracting. Tumor much less. Patient is cheerful and happy.

May 8th—Spines on dorsal vertebræ begin to be tender from pressure on the strips that support his back in the bath.

May 10th—Removed from the water bath to bed; has improved; bed sores have improved in appearance; feels anxious to have the limb amputated; slough is still extending, but slowly.

May 11th—While in the water bath seemed weak during the night; growing worse; at 4 A. M. it was observed that the water was bloody. He was at once removed from the bath. A bleeding point was observed upon outer side of the leg at the point of slough. Bleeding has ceased. At 8 A. M. I was called and found the patient pulseless. Died at 3:30 A. M. Post mortem examination five and one-half hours after death. The soft parts had entirely separated from bone as high as the middle of the leg. Sloughing had continued gradually until it had reached the junction of the upper and middle third. The tumor, which had not pulsated since the day of operation, is soft. Somewhat reduced in size. The wound made in the application of the ligature was healing nicely, with a margin of new epithelium one half inch wide all along the border. Incision was made from Poupart's ligament down to the inner condyle. The skin and subcutaneous tissue removed to the sac. The sartorius spread out on the tumor three inches in width. The artery had been reached through its outer border. The græsalis was also spread out and thin on its inner side. The sac passed deeply to the bone, and was in front of the adductors. The rectus femoris and

vastus internus being on the outer side, the tumor extending from near Poupart's ligament to within three inches of the knee joint; measured six inches in diameter. Sac was thin, and of condensed areolar tissue, without laminæ of fibrin within. Fibrinous deposit of perhaps about eight ounces in the sac; also, fluid portions with dark liquid blood, and an earthy looking coagulated granular blood. On examination of the vessels ligated it was found that one was the femoral vein. A peculiarity not explained by the post mortem examination is found in the fact that the first vessel which was ligated was the artery, did not result in the complete cessation of the pulsation. That the tumor did not gradually diminish in size; that the thrill and murmur did not entirely cease, and before the ligation of the second vessel it was distinctly observed that the blood passed in a downward direction through it; that the pulsation and thrill continued; that immediately upon ligating the second vessel pulsation, thrill, murmur, all disappeared; the tumor rapidly diminished; the skin became shrunken in a few moments, and, in the course of twenty-four hours, the limb was reduced to nearly one-half its former size, indicating, perhaps, that there must have existed a communication between the iliac artery and the iliac vein, and that, when the artery was tied, the femoral vein, assuming the function of an artery, and carried the blood into the tumor.

Proceedings of Medical Societies.

TRI-STATE MEDICAL SOCIETY.

ON THE THERAPY OF THE WATERS OF HOT SPRINGS, ARKANSAS,
AND THEIR RELATION TO THE MEDICAL PROFESSION AT LARGE.
By J. L. GEBHART, M. D., of Hot Springs, Ark.

Although this watering place is fast becoming a fashionable resort, up to the present time it has been exclusively resorted to by all classes, for the benefit of the curative qualities of the waters.

The number of visitors to these springs, during the last ten years, has increased at the rate of about one thousand per annum. During the year 1879 about twenty-five thousand visitors have visited the place, and about twenty thousand of that number have been invalids suffering with all forms of chronic diseases, of so obstinate a character that the patients themselves have despaired of procuring relief at the hands of the profession at home. Not more than one-fourth, or about five thousand of these were advised by their physicians at home to try these waters as a last resort; the physicians who do send their obstinate cases here are generally members of the profession who have themselves visited these springs and made their observations on the ground, or else have had some obstinate cases under their own treatment—known the conditions of these patients both before and after their visit to these springs, and as a rule are the most eminent among their medical brethren at home. It is not claimed that the medical profession of Hot Springs are the superior of you gentlemen, or the profession at large, either in skill or attainments, but it is freely conceded that our equals, yea, our superiors in these respects are to be found in almost every part of our common country; neither is it true that there is to be found in these waters any specific for any disease whatever; *it is, however, claimed* that there are great curative agencies in these waters, that are not in the hands of the profession elsewhere, and all that the profession of Hot Springs have a right to claim, is the right to study these waters so as to use them to the best advantage.

since they are in a position to do so ; it then becomes our duty to explain to the profession at large what the curative factors are, their effects on the human system, their *modus operandi*, and in what pathological conditions they are indicated and contra-indicated, so far as our researches shall clearly warrant, leaving all doubtful points in abeyance for their research.

To discharge this duty to the best of my ability, in response to the resolution your association did me the honor to pass at your last meeting, asking me for a paper on this important subject, it is with pleasure that I submit the following views as the result of my observations and investigations, knowing well how easy it is to be mistaken in scientific research, particularly within unexplored fields ; I claim only the merit of candor and sincerity, earnestly inviting further investigation and criticism.

The most reliable chemical analysis that was ever made of these waters, was by that distinguished scientist, Professor Robert Dale Owen, in the year 1858, by the following process :

A large but definite quantity of the water of seven springs was separately treated and evaporated to dryness, the residue tested and determined by chemical reagents and gave only from eight to ten grains of solids to the gallon in the aggregate, with a considerable difference in the different springs relatively, and approximately as follows : viz.

Organic matter combined with some moisture.....	1.16
Silica with some Sulphate of Lime, not dissolved by water.....	1.40
Bi-carbonate of Lime.....	2.40
Bi-carbonate of Magnesia.....	0.50
Chloride of Potassium.....	0.04
Chloride of Sodium.....	0.218
Oxide of Iron and a little Alumina.....	0.133
Sulphate of Lime dissolved by water.....	0.320
Loss. Iodine. Bromine.....	0.053
Total.....	6.254

This analysis it must be remembered does not even refer to any gaseous or volatile constituent, and if any active medical action is to be attributed to any or all of these constituents, it would only go to prove that the infinitesimal doses of our friends, the Homœopaths, are as yet heroic in size and require still further attenuation to become thoroughly efficient, no one in his sober sense will attribute any active medical qualities to such quantities of all of these comparatively inert constituents.

There are over fifty springs, discharging in the aggregate about five hundred thousand gallons per day, ranging in temperature from ninety to one hundred and fifty degrees of Fahrenheit's Thermometer. The water is perfectly clear and tasteless, and gives up all its solids within a few feet of its fountain head in the form of a calcareous rock called "tufa;" no one, however, as yet, has discovered a trace of silica (Si. Oz.) in this tufa. Prof. Owen supposed that it was all carried off by the water of Hot Springs creek. This, however, I found was not the case, except in a limited degree; this tufa is not formed by a precipitation of the sediment of the solids, but the deposition occurs more like the process of electrolysis, but without the decomposition of the compounds, since it occurs only in rapid currents, jets or ripples, and each constituent is deposited by itself and in succession; first the iron, next lime, then magnesia and so on, where there is no current, a sedimentary deposit of soft creamy mud is invariably formed in the bottom of the undisturbed pools; bubbles of carbonic acid are continually discharging from out of the veins of the hot water at the bottom of these pools.

In the summer and fall of 1876 I engaged in a series of investigations with the following instruments: a spectroscope of great dispersive power with the Rhumkurf induction coil, Becquerel electric apparatus, and other necessary adjuncts, a delicate universal galvanometer, chemical apparatus, etc., with the following results:

Taking the specific gravity at the various temperatures of the waters of twenty-one different springs at every ten degrees of difference, I invariably found them to be much lighter than distilled water of similar temperature, the higher the temperature the greater the difference, when the gases and volatile constituents were expelled by ebullition, the solids then being precipitated, my figures of specific gravity coincided with distilled water, and I had simply pure distilled water giving me only oxygen and hydrogen spectrum lines, with scarcely perceptible flashes of silicon lines; examining now the solids I had precipitated, I found them in all respects like the general character of the tufa deposited by electrolysis, as well as the mud in the pools, and *without a trace of silica.*

Now, this water when taken hot at the fountain head, invariably gives silicon spectrum lines. The question naturally arose why the silica is absent in the tufa, mud and water after thor-

ough ebullition, and yet silica is always found when eliminated by chemical reagents. A treble distillate seemed to me to solve the problem by comparative spectra of reversal lines and dilutions until the lines paled into flashes and finally disappeared. [Here a description of the manipulation was given in detail.] This gave me proof of an excess of hydrogen and silicon with carbon in the distillate, leaving a clear inference that the distillate contained a hydride of silicon, the carbon probably remaining free in the form of carbonic acid, which I was unable to eliminate from the water in the first place except by chemical reagents, as this invariably resulted in showing silica, and, boiling, carried off the silicon, it was deemed impracticable.

I was thus forced to the conclusion that a hydride of silicon was present in this water, which might contain one equivalent of carbon, and that this was decomposed by the presence of the reagents, liberating the silicon to combine in the nascent state with two equivalents of oxygen forming silica (Si. O_2). This was made public at the time.

Shortly before this time a discovery was made by some distinguished scientists of Europe that silicon was capable of combining with hydrogen in all the relations that carbon does, producing a Propyl, Ethyl, Heptyl and Nonyl, and shortly afterwards that one equivalent of carbon could be made to combine with the various hydrides of silicon, constituting quite a large class of silicon compounds, the therapy of which so far as I know have never yet been accurately determined, except that some of them are known to be powerfully stimulant and alterative.

This compound, whatever it may be by future research prove to be, I believe to be one of the active curative factors of the waters of Hot Springs. Quite a number of other experiments were made to determine this important question, all pointing with unmistakable force to the same conclusion, the recital of which the length of this paper forbids, other important subjects requiring our attention.

I have been thus explicit, and perhaps prosy, because some of my medical brethren of Hot Springs have attempted to disparage my investigations, although not one of these has ever bestowed a moment of time to the investigation of this subject.

Some of this water gives up its heat more rapidly at first on being exposed to the atmosphere and for a considerable time

afterwards than ordinary hot water. It must not be understood however that the heat in this water is claimed to be different from the heat of ordinary hot water, and yet this water, at one hundred and fifty degrees of temperature, does not boil any sooner, under exactly the same conditions of being heated, than distilled water does at seventy degrees. Here is a difference of eighty degrees. I mean that the hot water of these springs requires its heat to be raised sixty-two degrees to reach the boiling point (212°), while the other requires one hundred and forty-two degrees to reach the same point; and yet it is as easy to raise the temperature of the latter one hundred and forty-two degrees, while the former refuses to receive more than sixty-two degrees under exactly similar circumstances.

This can be explained only in two ways, by the principles of evaporation and correlation. I hold that both processes are in active operation. Nothing is better understood than the fact whenever a liquid changes to a vapor the vapor withdraws from the remaining liquid all its heat of vaporization, but this alone would necessarily require the presence of a sufficient quantity of volatile constituents to carry off eighty degrees of heat, while being heated up to place the two liquids upon an equality; and that is more than I would venture to claim, since some of my medical brethren deny even the existence of any volatile constituents at all.

The only remaining explanation left is by the correlation or metamorphosis of heat into some other form of energy; it is not questioned by any intelligent physician at this day, that all the operations of nature—all mutations or changes in matter, are directly traceable to correlations of energy, and as constantly as one form disappears another becomes evolved; and since we now know that light, heat, electricity, gravitation, cohesion, chemical affinity, and animal as well as vegetable vitality are all only different modes of motion, or in other words, different forms of energy constantly changing from one form into another, I have reason to believe that at least some of the heat in this water is correlated into electricity; the evidences are as follows:

Energy in any form is as indestructible as matter; its disappearance as heat cannot all be accounted for by radiation, conduction, and the vaporization of the water and volatile constituents; it must of necessity then be changed into some other form

of energy. Here the galvanometer comes to our aid and shows the presence of electricity in excess of the quantity found in ordinary hot water. It is well known that whenever a solid is taken up into solution, or given up by a solvent, electricity is generally evolved.

The galvanometer does not give the evolution of electricity before the hot water comes to the surface of the earth. This is demonstrated by the introduction of insulated conductors some distance up into the subterranean veins as compared to the reading of the instrument when connected with the same water at the surface of the earth.

From this I infer that the heat is correlated into electricity, not by chemical action, but probably by the action of the atmosphere on the water, causing it to part with its solids as well as its gaseous constituents.

The electricity evolved in this water is of such low tension that it produces no effect whatever when tested by the most delicate electroscope, however great the quantity; and yet the galvanometer responds quite readily.

The electricity most singularly disappears when a bather, whose functional action is stimulated into a state of exalted activity, is immersed in an insulated bathtub, as demonstrated by the comparative use of the meter with the bather in and out of it.

This I can explain only by recognizing the body of the bather as receiving either the heat of the water and correlating it into functional activity, (which is simply a manifestation of vital energy in one form) or else that the body receives electricity and correlates it into vital energy; I incline to the former theory; however this may be, such seems to be the effect on the bather, and I regard this *correlation of heat into vitality* as the greatest curative factor in the waters of Hot Springs.

The immediate effect of a bath of 98° temperature of this water, as compared to a bath of ordinary water of the same temperature is that this is very much more stimulant, exhilarating and eliminant, the heat of the body is raised from three to four degrees, the action of the heart is augmented both in force and frequency, often increasing the frequency twenty-five beats in a minute, all the secretory organs becoming roused into great activity—a feeling of pleasure and gladness—a modification of

pain and weariness, and a relaxation of muscular and ligamentary contraction.

The effects of a continued use of these baths are: remarkably great alterative action, correcting retrograde metamorphosis; equalizing and moderating nervous excitability; increased action of the entire absorbent system; increased disintegration of tissue; great increase of assimilation and reparation; unparalleled activity of all the excretory organs, eliminating mineral blood poisons rapidly, such as lead, mercury and iodine, so rapidly that compounds of the two last named are here frequently prescribed and are often taken in heroic doses with almost perfect impunity; eliminating also all effects and poisonous products of the disintegration of tissue by the kidneys and skin, and a material abatement of the morbid craving for alcohol and tobacco in those who have acquired the habit of the excessive use of these stimulants; all of these therapeutic properties, more especially the alterative, are counteracted by the use of opium, tobacco and alcohol, the latter are forbidden to patients; all these effects, as with nearly all other medical agents, are not strictly constant; even where these waters seem to be clearly indicated, there is a small percentage of failures even at Hot Springs. In my opinion most of these failures are not due to a lack of virtues in these waters so much as to their mismanagement and indiscretions on the part of the patients themselves.

The pathological conditions in which these waters are indicated may be gathered and interpreted from the above given effects and therapeutical properties by any intelligent physician without a special enumeration of those morbid conditions in which these waters have acquired their world-wide reputation, with however this addition, that every character of pain that is not connected with any acute reaction is almost constantly and permanently but gradually relieved by their judicious administration.

One other effect I must refer to before I close this subject, which is quite unique in medical experience; almost all senile infirmities seem to be postponed for a year or two. It is not unusual to see octogenarians put on juvenile airs; this effect I attribute to correlation of heat into functional activity. To this same correlation I attribute also the unparalleled curative virtues of these waters in all forms of uterine diseases and their sequences.

Where doubts arise from peculiar or unusual conditions some reputable physician of Hot Springs should be consulted by mail through the attending physician at home, giving all details as far as possible.

The pathological conditions in which these waters are contra indicated are: Whenever the pulse is materially accelerated by the disease; an exalted action of the heart and arteries; where there is a tendency to active inflammation or any form of acute disease; where the action of the heart is in any way interfered with, either by structural change or the presence of liquid in the pericardium; where there is a marked increase of the temperature of the 'body'; in hectic fever; in cancer, or any form of epithelioma; where there is a tendency to wasting hemorrhages, and with pregnant females.

The medical profession of Hot Springs do not desire, nor are they entitled to your patients when it is in your power to relieve them at home, but whenever you have not the curative factors at hand after thorough trial, then it becomes your duty to your patients as well as to yourselves, to advise a trial of the efficacy of these waters in all those cases in which their use is indicated. It is furthermore your duty to see that they get into the hands of a reputable physician for advice and treatment, and to escape those medical frauds who buy their patients openly from any of our hotels, and from paid ropers and steerers at a stipulated price per head, not for treatment and relief, but for downright robbery and malpractice.

It is unfortunately true that the efficient curative agents as well as the therapy of these waters are as mysterious as the source of the heat and of the waters themselves. It may also prove true in the future that where their use is now apparently contra-indicated they may prove to be equally efficient as in conditions wherein experience has already proved their efficacy. Careful and progressive experimentation should continue. Their use in varied limitations and modifications should be resorted to. Scientific experts should enter the field here for the sake of science and humanity. Government should lend its aid with unrestricted liberality. There should be here a great national sanitarium. The topographical possibilities for a beautiful city are infinite, and nature with open hand has laid broad the material foundations for the exhibition of the learning and philanthropy of the greatest and most liberal nation known to history.

SUGGESTIONS ON THE MANAGEMENT OF NATURAL LABOR. By J.
W. SINGLETON, M. D., of Paducah, Ky.

As chairman of your Obstetric Section I have the honor to make the following report: I have discovered but little advancement in midwifery practice during the past year. In availing myself of all accessible means of obtaining new ideas and original suggestions on this important part of our professional duty, I have diligently examined many of our leading medical journals for the period mentioned, and particularly those especially devoted to obstetric science. Nevertheless, since our Society met in the beautiful capital of Illinois, woman, the "better part of our creation," has gone on child-bearing pretty much "after the old-fashioned way," as frequently without as with the help of the doctor; often without a midwife, and occasionally without the assistance of even a good nurse. It is therefore evident that notwithstanding the "pains and penalties" of child-birth and of—

"Moving accidents by flood and field,"

the population of America, as elsewhere, is decidedly on the increase; and that the world from present "prospects" will soon have people enough to take care of it, by meeting the highest demands of this progressive age. In our own country, as far as I can learn, during the past twelve months the work of human parturition has gone bravely and successfully on. We have abundant reasons to congratulate the child-bearing women of Indiana, Illinois and Kentucky that they have, as a rule, been remarkably exempt from puerperal diseases of every kind. We are devoutly thankful to the "author of every good and perfect gift," that during the past year we have had no serious epidemic among those whose God-appointed duty it is to "increase, multiply and replenish" this great republic of ours. With joyful emotion, let us join in songs of thanksgiving that the labors and fruits of human birth-hood are swelling onward to the full flood-tide of successful accomplishment. And so may they ever continue until this favored land of ours shall want for neither care, culture, nor the performance of any duty? Let us

unite our hearts and voices in blessings upon the mothers of our beloved land, and with kisses for the babies, thank Heaven that the labors of regeneration still go on !

It is not my purpose on this occasion to attempt the discussion of obstetrical questions which men profound and erudite in medical science have long since settled. Nor shall I consider the anatomy or the physiology of a process which is about as well understood as any other department of medical knowledge. The discussion of the mysterious laws of "the unseen universe," by which the ovum is fecundated and carried to its maturity, need form no part of this paper. Suffice it for me at present to discuss practical matters in midwifery wherein all members of our profession are not of one mind. I therefore humbly beg permission to offer a few

SUGGESTIONS ON THE MANAGEMENT OF NATURAL LABOR,

subject of course, to the kind and candid consideration of this honorable body. I think, that in the conduct of purely uncomplicated natural labor, we have made but very slight improvement upon the practice of former times. My opinion is, that nearly all of the apparent advancement in the generation and production of children has been accomplished more by the improved intelligence and physiological education of women, than by the efforts of "scientific obstetrics," so-called. The great questions with us now are, how we shall still further promote the safety, increase the comfort of parturient females, and shield them from the dangers occasionally incident to child-birth which do occur in spite of all we can possibly do to avert them. I believe that the experience of physicians generally will substantiate the assertion that "labor pains" are not, in themselves, as active and efficient as they were ten years ago. Nor do I believe that "natural labor" is as dangerous in its probable results and possible consequences as it was twenty years since. Admitting the truth of these opinions, what are the results which have followed this (which I venture to call), general uterine inertia? Are not the wombs of parturient women now more completely under the control and management of the physician or the mid-wife than ever before known in your experience or observation? But yet this gradual change which has taken place in the physiological functions of pregnant uteri, not generally recognized or acknowledged, has uselessly caused child-

bearing women to fear the midwife and the doctor worse than child-birth. It has given rise to a practice of obstetrics which, we fear, is being too often abused. It has induced prudent, cautious and conservative practitioners to lose confidence in their own powers, by contradicting instrumentally the deductions from their successful experience in the past. It has unsettled to a marked degree the ancient traditions of obstetric science. It has made many of the older members of our profession feel that they have been "*scientifically*" ignorant all their lives, notwithstanding they have had twenty, thirty and even forty years of obstetrical experience, with results entirely satisfactory to themselves and their clients. There is a wide difference of opinion and practice between what might be called, with propriety, "the new school" and "the old school" in the science and in the arts of obstetrics. Deeming the votaries of both schools honest and conscientious in what they do and teach, let us see if we cannot say something towards reconciling or modifying, this antagonism on the safe and healthful plan of conservatism in the happy medium between the two extremes of "*do-nothing-ism*" on the one hand and "*do-too-much-ism*" on the other. In the vast majority of cases of pregnancy now-a-days, and especially in what is called "good society," hereditary influences have a great deal to do with insufficient and inert uterine pains in labor. So many ways and means are constantly used to prevent conception and produce abortion by multitudes of "*ladies*" of the present day, that there is a general wide-spread *uterine habit* antagonistic to a normal pregnancy and birth, which, at the finale, causes nature to call aloud for help of some kind in the supreme hour of distress. Thus while labor pains are slower and for the time being less efficient than formerly, as the effect of hereditary causes handed down from mother to daughter, the obstetrician becomes more and more necessary in parturition. He often makes himself the sovereign arbiter of the maternal destiny and the chief factor in the salvation of both mother and child. He is thus made master of the situation in necessities which were produced by bad education and a defective social morality. We trust that under the elevated teachings of a correct hygiene the present and future mothers may learn how to conduct themselves safely and harmlessly through the consequences and dangers of pregnancy according to the laws of nature. We hope that they may soon forget all of the evil lessons.

they have too aptly learned in "the school of convenience" for the sake of their innocent and helpless offspring if not for their own good. We pray that the mental and moral power of our women may be improved and chastened by the enlightened surroundings of the age in which we live; that their very natures may be strengthened and purified with the sacred longings and holy anticipations of a sweet, tender, and loving maternity, for on the renewal of this God-given sentiment of our mothers in the hearts of the girls of the rising generation, rests our future hope for a vigorous and healthful population not only in this country but throughout the world!

I fully agree with "*the do-every-thing*" class of obstetricians that "*do-nothingism*" is dangerous, as a rule, but at the same time endorse the position of the negative practitioners, that what is understood to be "meddlesome midwifery," instrumentally considered, is a little worse than the practice of any other school known to medical science. I cherish no confidence in or love for the negative practice of obstetrics. From the time we discover the sure approach of the maternal crisis until the accomplishment of the *decisive* act, there is an instinctive demand upon us to do something to comfort and relieve. We must do something to meet the trying exigencies of the hour. Our very presence must be felt as a power for good in the lying-in chamber,—a living and a present benefaction! If it is only to administer a cup of cold water to the pain-racked sufferer in the name of our merciful calling, or to fan the throbbing temples ribbed and rugged with distended and distorted blood vessels,—or to lift the aching head from the disarranged pillow, and if needs be, nurse it with paternal tenderness in our arms,—we must do something to make our ministrations a boon and a priceless blessing to the object of our tender care! We must make *our will* her will for the time being; our moral power her moral power, thus strengthening each nerve and fibre of her complex personality through that strong, electrical chain of soul-inspiring, active, watchful and efficient sympathy, which will nearly always comfort and encourage a parturient woman through the perils of a difficult labor, to a happy result.

THE HAND THE SAFEST OBSTETRICAL INSTRUMENT.

There seems to be a God-like power in the educated human hand when it is engaged in ministering to a woman in labor. I believe it was the late Prof. Horner who said, "that the human

hand guided by the human will, is the most perfect instrument man ever saw or ever will see." Its gentle, electric touch, full of mental nervehood, glowing with soul-power, and guided by exquisite feeling; its fingers thrilling with keen vitality, instantly and like magic, puts you in perfect sympathy with the powers and person of your patient. She draws comfort and courage from your firm and steady grasp, and under its supporting and encouraging influence she becomes more than herself, because it completes the grand electrical chain of animal and psychological power. We all have known and felt "the magnetism of the hand" in the ordinary meetings and greetings of every-day life. How often have we realized that "next to the head, the hand is the seat of the soul." I am persuaded that when God made man out of the dust of the earth, He held him up with one hand while He built him up with the other. So the intelligent and sympathetic obstetrical hand is of the utmost importance to womankind in the sore hour of her travail. The firm, gentle, plastic hand, with an eye and a heart in every finger, as the junior brother and faithful instrument of the steady brain, is worth all the instruments that have ever been invented from the unnatural birth of Julius Cæsar down to the present day. The educated, thinking hand guided by an almost independent and instinctive intelligence; seems self-inspired in its offices of detecting and removing difficulties and dangers that our eyes can never behold, and with a celerity and spontaneity that appear to be guided by divine direction. The medical man who knows how to use his hand in obstetrical offices, and who has the faculty of infusing his mental and spiritual strength into *the will* of a woman in labor, makes himself a most important factor in the divine ordinance of child-birth, and rarely ever needs the help of machinery to drag a human being into the light of this world.

THE PRE-NATAL ABDOMINAL BANDAGE.

Practically speaking, when there is no marked disproportion between the diameter of the pelvis and the presenting part, in ordinary labor, there ought seldom to be a tedious or protracted confinement, if we properly avail ourselves of the opportunities and facilities offered us, by simple means, to innocently and harmlessly assist the efforts of normal, physiological processes in accomplishing the crowning act. Much of the anxious delay

and painful suffering in natural labor, arises from the neglect of the accoucheur to help the patient in the proper way, and at the right time. When the os is properly dilated, the lower part of the rectum sufficiently emptied, the bladder kept steadily evacuated, but the labor progressing too slowly, there is nothing, in my opinion, that gives more solid "aid and comfort" to the woman, than a smoothly applied and equally adjusted pre-natal bandage, from the ensiform cartilage of the sternum to the symphysis pubes. Let this bandage be arranged by yourself, or by some competent nurse, in your presence, and gently tightened, without giving pain, as the labor proceeds to its final accomplishment; so as to give support and confidence to the mother and no unnecessary suffering, and I am well satisfied, from long experience, that fully one-half of the occasional delay and agony incident to child-birth will be happily prevented, and the patient safely conducted past many of the possible accidents of parturition. The bandage before delivery acts not only as a benign and positive help in completing the labor, but as a means of assurance, it exerts a marked influence upon the patient by inducing her to help herself in her trying emergency. She feels that she has something to lean upon, while she exerts the most vigorous power of her will and body to promote expulsion. She feels herself girded about with a harmless embrace, which gives her hope and courage to think, that in the end, and very soon, all will be well. Her bowels are well supported and her womb kept in proper position. The tendency to ante flexion is happily controlled. The womb, by the means suggested, is not permitted to surge from one side to the other under the action of excentric or one-sided contractile pain. The contents of the organ are put on the proper plane for safe exit, the posterior *tilting* of the presenting part is nearly always, slowly but surely, counteracted by the pre-natal support, and the os placed and kept in the proper axis for an early birth. As the labor steadily progresses, follow gently yet firmly with the bandage, skillfully holding every inch of ground you gain. When the labor is finished, the bandage is already in its place to secure the prompt and speedy expulsion of the placenta, force out the clots, and insure prompt contraction of the uterus.

I beg the privilege of saying, that during an obstetrical practice of twenty-five years, I have never had a serious case of post-partum hemorrhage, and that as I believe, in consequence of

always using the pre-natal bandage, when it was at all practicable to do so. If my professional brethren, who have not, will adopt this simple prophylactic, and always give a little ergot, when its use is not contra-indicated, just before delivery, such will be the result of their experience in ninety-nine cases out of a hundred. I speak with perfect confidence and earnestness in this matter, for I know what I assert to be true. Besides, the abdominal bandage, used in the manner proposed, goes far towards preventing rupture of the womb, an accident that occasionally happens, in spite of our best directed efforts to prevent it. I repeat, that the bandage insures, almost without exception, not only the thorough evacuation of the uterus, for the time being, by helping to detach the after-birth at once, and speedily, but guards against the formation of clots, materially mitigates the severity of "after-pains," cleans out the whole machinery of the generative organs, and puts the glad mother on the joyful way to a speedy and satisfactory recovery. I have found that in many comparatively tedious and difficult cases of natural labor, where the widespread elements of hereditary uterine inertia presented itself, that when it was necessary to give support to the action of the womb, and when the hand of the obstetrician was incompetent to the task of keeping up irritation and contraction, the abdominal bandage "acted like a charm" in assisting the patient through her troubles, even when I had grave apprehensions that a resort to instrumental delivery would eventually be unavoidably necessary. I repeat, that I have had so many apparently dangerous, yet in the end satisfactory deliveries, and without harm to either mother or child, in consequence of always using the bandage in question after the completion of the first stage of labor, that I again recommend this pre-natal support to my brother practitioners, in the full assurance that the more they use it the better they will like it.

ERGOT A GREAT BLESSING.

I beg to remark, in this connection, that as a prompt and faithful auxiliary to the bandage just considered, there is nothing in the whole materia medica comparable to good, fresh ergot, appropriately and prudently administered—where it is proper to give this almost indispensable labor-producing remedy. When the article in question is indicated I do not propose to do without it, if it can be obtained for love or money. We should have

some reliable preparation of ergot always on hand, when attending women in child-birth, for I am well satisfied that more deaths have occurred in parturition, in consequence of its want, than by its use or so-called "abuse."

I know nothing, practically or by observation, of the disease toxicologically called "ergotism." It is to me a complaint of the medical imagination. I do not believe that there is an honest and conscientious practitioner in this Society, or anywhere else, who believes that he ever did any harm with ergot, prudently administered, or that he has ever killed a child or injured a mother with it. I do not believe that the uterus has ever been ruptured or the perineum torn in consequence of its use, or that any positive harm ever followed the judicious administration of this drug, that would not have occurred had the article never have been given at all. Excessive tonic contraction, with no progress in the labor, can be as easily and readily controlled by chloral hydrate in small doses, or by a few whiffs of chloroform, as thirst can be slaked by water, or animal temperature reduced by the use of ice. Reasoning, therefore, from the results of the intelligent use and the vaunted non-use of ergot, we hazard the opinion, however herterodox it may be considered by many of our craft, than in striking an honest balance between the ergot practice and no ergot practice, if the whole truth in the premises could be known, the superiority of the ergot theory would have living witnesses by thousands. As a matter of course, we can give ergot improperly, and no doubt this is often done; but at the same time, we seriously fear that instruments are too often used unnecessarily, and sometimes almost wantonly, in delivering poor woman of her precious living burdens, as a matter of convenience to the doctor.

We can give quinine, calomel, rhubarb and aloes, when a little cold water and beef tea are alone demanded. We can poison or nauseate a man or a woman with almost anything, from arsenic to the simplest food; for the legitimate use of an article is one thing and the senseless abuse of it is another. The administration of ergot under questionable circumstances, may give rise to certain inconvenient and unpleasant symptoms for the time being, but they spring from the physiological effects of the remedy, which under other circumstances, would appear harmlessly benign, causing no alarm or solicitude whatever. It is foolish to say that the action of this medicine cannot be con-

trolled and directed in its operations, when its therapeutic effects are doing no good. In such contingencies we have in chloral hydrate and chloroform two most effectual throttle-valves to safely engineer the womb over any danger that may threaten our gentle craft in consequence of too much ergot in the human boiler. It is manifestly as proper to say that our patient is poisoned with quinine, under the peculiar sensations produced in the head by that alkaloid, as it is to assert that a woman is poisoned with ergot, during persistent ergotic pains. In one case your patient feels the effect of a medicine which nature is able to regulate and modify, as best suits her sovereign purpose, and in the other you can control and direct it to beneficial results, according to the laws of nature and the teachings of rational science.

In the vast majority of cases, the physiological response to the administration of your quinia and ergot, is in accordance with the demands of the occasion, and without harm to your patient, because in obeying the calls of nature for aid and assistance, you have given those remedies which meet the physical necessities of the situation. Ergot is as harmless as quinine, when given with prudence and discrimination. I believe that ergot, next to chloroform, is the greatest blessing ever bestowed upon child-bearing women. I could as well do without my left hand in the management of a tedious case of natural labor, as without ergot to help my patient through her hour of trial!

I prefer to let critics state their arguments on the other side of this question; but, we may bear in mind that nearly all of the respectable opinions expressed against the use of ergot were uttered by good men when its true therapeutic value was not thoroughly understood; when, indeed, it was regarded by scientific physicians as a poison, and not as a safe physiological means of expediting labor. Ergot has attained its high place in the medical world "through great tribulation" and slander. I do not believe that it ever did any harm to either mother or child when prudently and properly given, with due regard to the requisite proportions between the diameter of the pelvis and the presenting part.

THE DISTENSION OF THE PERINEUM.

As delays are sometimes dangerous in the second stage of labor, during the temporary inertia of the womb at the time,

and as the injury done to the mother or the child is principally inflicted at that period in confinement, I would excite, and if possible, sustain expulsive contraction with ergot and the pre-natal bandage, as steadily as is practicable and safe, and take measures to distend the perineum in advance, in order that this part may not be surprised by the final throes into laceration or rupture. By distending the perineum before the presenting part is pressing upon it interiorly, and by deftly drawing upwards and forwards the bagging tissues of the vagina, we prepare the way for a comparatively easy and safe delivery, without the use of forceps, with no harm to the child and with great comfort to the mother.

When you talk of "supporting the perineum" in the second stage of labor, you talk nonsense! The power that you exert with the pressure of your hand to the parts involved militates against the accomplishment of the labor itself, retards its progress, and favors the occurrence of the possible accidents and complications which we always try to prevent. You cannot apply this so-called "support," as taught in the books, to any considerable extent, without doing harm either to the womb, the mother, or the fœtus. As well might you try, innocently, to regulate the strength and fury of a storm as to endeavor, harmlessly, to govern and influence the last agonizing throes that force the snuffling infant into the light of day. The phenomena of labor are wonderfully mysterious, and almost incomprehensible. They have their laws, which we can modify at times, and direct to a certain extent, into the path that leads to happy consequences, but we can never wholly control them, for they are the laws of nature and the God principle infused into animated existence! We can only, in this instance, "clear the track" and open the way for the sublime culmination of woman's highest duty to mankind.

It is my observation that the perineum of woman in child-birth is rarely, if ever, ruptured or torn, except by too sudden delivery or the use of the forceps. When the parts have plenty of time to prepare themselves for the final ordeal, with or without the assistance of the physician or the midwife, and the labor proceeds slowly and surely to the end, serious injury rarely ever happens to the soft parts of the pelvic floor, though we sometimes have a little excoriation as the result of unavoidable friction.

By properly distending the perineum in advance, you not only prevent probable wounding in the last act, but in a head presentation, you keep the pressure off the brain of the child, relieve the fundus of the wound of inordinate strain, and promote the efficiency of the expulsive pains, without danger to the mother or her coming offspring. Then, we think that with the use of the pre-natal bandage, attention to the normal position of the presenting part, the judicious administration of ergot, and the previous distension of the perineum, we shall have use for obstetric forceps, once in about 500 cases of midwifery, even though at times we may feel almost compelled to resort to instruments in self-defence, if not for the earthly salvation of our patients. And in addition always use plenty of good and fresh hog's lard. "Oiled wheels run smoothly." God bless the man or woman who first suggested grease in obstetric practice! Patience, perseverance and grease will help a fellow out of many a painful difficulty in the lying-in-chamber. Depend upon it, there is nothing like patient pluck and prudent perseverance in midwifery! These two guiding principles are worth all the instrumentally "meddlesome midwifery" in Christendom. They are full of gentleness, mercy and courage in defence of her who cannot defend herself. There is no soulless steel in these tender and watchful vigils. There are no instrumental arguments in this God-like work. They are conservative, and conservatism is the essential principle of all permanent success in the practice of medicine!

THE ABUSE OF INSTRUMENTS.

If we mistake not, the medical schools of America, generally, and likewise of Europe, are now advocating a resort to the use of obstetrical forceps more than formerly, and often to the exclusion of other time-honored means of conservatively consummating child birth. The *forcepathist* of to-day, "armed and equipped" as "the law" of modern schoolmen, "directs," with obstetrical forceps, a powerful weapon for evil, when improperly used, launches forth upon his brave and bloody career, to prey upon the wombs of womankind, thoughtless of the pain and injury he inflicts, and regardless of the gynæcological miseries that follow in his train! Nor does this unfortunate *forcepmania* influence the practice of the younger practitioners alone. It has become unhappily "*fashionable*" in certain quarters. Its baleful effects have, to a certain extent, "turned the heads" of

medical men venerable in the service who have, until the last few years, practiced conservative midwifery most successfully and satisfactorily to all concerned. It cannot be truthfully denied that nearly one-half of the "scientific" medical world have been "converted" to the idea of a more frequent use of warm steel in delivering pregnant women of their precious burdens, in violation of Nature's laws and in vindication of "science," falsely so called. We must find good and substantial reasons for the radical change which has taken place in this department of our professional duty, or the "New Departure" cannot sustain itself. We must know why it is that hundreds and thousands of parturient women are not permitted to have children "in the old-fashioned way" and manner which an All-Wise Creator has appointed, and why it is that millions upon millions of this busy world of ours did not perish "in the *bornin*" within the rude embrace of ergotism nor in the crushing grapple of obstetrical forceps? Why it was that Dr. E. M. Power, of St. Louis, Missouri, delivered successfully two thousand women without resort to instruments, and why Dr. Collins, of the Dublin Lying-In Hospital, under the most unfavorable circumstances of poverty, disease, deformity and wretchedness, delivered 16,414 women with success, using the great baby-crusher but once in 608 cases? And why is it that in our country, in the cities, towns, and amid rural populations, physicians and midwives have been "grannyng" successfully for ten, twenty, thirty and forty years, all classes of people, "without regard to color or previous condition," without ever being compelled to resort to instrumental delivery.

These facts, truthfully stated, are worthy of serious thought. We cannot afford to despise the lights of practical experience, and especially when they lead us into the paths of safety and security. Judging from a rational and conservative standpoint, we conclude that there must be a mistake in the teachings of modern obstetrics. There is, evidently, great danger that the use of mechanical means to expedite child-birth will be abused. I am strongly of opinion that misapprehension of the influence of the hereditary uterine inertia, now generally prevalent, will account for the difficulty under which we sometimes labor, and that the use of the forceps will very seldom become necessary, if we realize this marked pathological change which has become *fixed*, as it were, in the wombs of many women of the present

day. There is certainly a more general "call for help" in the parturient office than ever known before. Let us, therefore, extend that help in the most innocent and harmless manner possible, by well directed, well timed, judicious physical and moral support; by the gentlest excitation of functional processes; by cleaning the vaginal track as much as practicable, and opening the way for the triumphant advent of promised "little ones" into happy households.

I would not be understood as saying that obstetrical instruments should never be used. Far from it. Unfortunately there occur cases and occasions in which their use is indispensable, at whatever risk they have to be employed. But I am well satisfied that the present epidemic of *forcep mania* promises but little safety and happiness to the babes and mothers of the future generations of mankind, if something is not done to circumscribe its evils and keep it within due bounds.

While it may be said, with truth, that the science and the arts of midwifery have not wholly escaped the salutary effects of the general blessings conferred by progressive medicine, I do contend that the unnecessary and heroically scientific use of the forceps in child-birth is opposed to progressive improvement in obstetrics. It is even more. It is emphatically instrumental retrogression, of which many of us will eventually feel ashamed.

A few remarks in regard to what I consider

CONSERVATIVE MIDWIFERY

will help to bring this report to a close, however imperfectly and unsatisfactorily my duty will have been discharged, both to this society and to myself.

I am indebted to the kindness of my distinguished friend Dr. R. W. Dunlap, of Danville, in our State, the President of the Kentucky State Medical Society, for the following most excellent summary on the use and abuse of the obstetric forceps. The doctrines embraced therein are so truly conservative, and in such direct opposition to *forcep mania*, that I heartily indorse them, and cordially commend them to the conscientious student of the obstetric art. Says he: "Dr. Rob't Barnes has presented these matters before the profession in an admirably learned and scientific paper 'On the use of forceps and its alternatives in lingering labor,' delivered at the debate on the subject in the Obstetrical Society in London, May 7, 1879. "Labor is a physiological pro-

cess, and any interference, either manual or instrumental, must of necessity be left to the direction of the physician in charge. That there are cases in which the skill of the obstetrician is required, and it would be culpable in him if he persistently refuses to interfere. The old adage is that 'meddlesome midwifery is bad.' It is equally true that delay and neglect may result in detriment both to the mother and the child; the avoidance of either extreme would be the safe ground to occupy. There can be no better guide than the observation and experience of leading men in this branch of our science. We will let them speak for themselves. Collins gives the conditions for using the forceps as follows:

"Generally speaking, so long as the pulse remains good, the bowels and bladder act well, the soft parts remain free from severe pressure, and the uterine action continues to be so as to cause the presenting part to descend ever so slowly, the patient having no pain in the abdomen on pressure or local distress, the child at the time being alive, I am satisfied no attempt should be made to deliver with instruments, and *he who does so wantonly exposes both mother and child to danger. The necessity alone of freeing our patient from impending danger should induce us to resort to instruments.*"

"The younger Ramsbotham says: "If the pains are subsiding gradually, or have disappeared, strength failing, spirits sinking, countenance anxious, pulse 120 or more to the minute, tongue coated brown or ashy, two or three rigors, tenderness on pressing the abdomen, green discharge and swelling of vagina, head locked, vomiting, humid breathing, delirium or coldness of the extremities, *then delivery must of necessity be effected*, and we should be acting most injudiciously to allow the case to proceed until the four last named symptoms appear without relief being offered. But so long as the uterus is contracting with energy, the strength and spirits good, the countenance natural and cheerful, pulse under 100, tongue and mouth moist and clean, no vomiting or rigors, or heat, swelling, or tenderness of parts; *so long as the head retreats in the absence and advances in the presence of a pain*, provided there be any progress in the labor, from hour to hour—so long there can be no necessity for instrumental aid."

Dr. George Johnston said in 1871, as quoted by Dr. Dunlap: "We have come to the conclusion, and our established rule is, that so long as nature is able to effect its purpose without prejudice to

the constitution of the patient, danger to the soft parts, or the life of the child, we are in duty bound to allow the course of nature to proceed. But as soon as we find the natural efforts are beginning to fail, and after having tried the milder means for relaxing the parts or stimulating the uterus to increased action, and the desired effects not being produced, we consider we are justified in adopting prompter measures, and by our timely assistance relieve the sufferer from distress and danger, and her offspring from imminent death." So much from Dr. Dunlap.

In concluding this humble paper, you will pardon me if I do not indorse the practice of this, in many respects, too fast medical age, which prompts an obstetrician to deliver innocent babies to the music of clanging steel, and too often with consequences which might be avoided by prudent and Argus-eyed waiting, and by the exercise of an intelligent and courageous patience. As ministers of mercy in the most trying hour of woman's gentle life, looking to God to help her in all we do for her relief, we should have a care lest in the too frequent use of mechanical means to effect delivery we prey with scientific voracity, uselessly and harmfully, upon the wombs of womankind to our present sorrow and perpetual shame.

Let us ever stand ready with pure hearts, devoted lives and willing hands, skilled in the use of every agency our beloved science has devised, or a wise experience approved, to promote the comfort and secure the safety of suffering woman in her truest, bravest and most sacred duty to the world.

And since even then, we cannot prove the sovereign abiders of her temporal destiny, we can, at least, help her to triumph over some of the enemies of the puerperal hour. This succor, as the positive friends of the distressed, and chosen guardians of the temple of life, we should always be prepared to furnish and promptly render, at all times and under all circumstances.

Safe confinement of child-bearing women, proper care of the maternal fruit, and the conservation of the health of both mother and child, being the objective points of all our efforts, let us omit no means consistent with sound reason and common sense, however simple it may appear, if at all suited to the desired end; ever keeping in mind the great truth, that in a vast majority of cases, nature is equal to the emergencies of sound and healthy parturition; or at least, she can often be induced to respond to the

demands of the occasion, by a little timely, harmless and judicious coöperation on our part.

Conception, gestation and childbirth, are inestimable blessings to good and healthful women, if the sacred functions of her sex escape the defilement of the base and the impure. Woman conceives according to that wonderful law enstamped upon the life-spring of her being as she came forth from the hands of her Creator in all the loveliness of unconscious beauty and artless grace. Through long and weary months, she nurses, next her heart, the maturing object of her hopeful expectations, with tender care and anxious solicitude. In due time she cheerfully submits to the inevitable. She goes to her couch of pain with a smile in her heart and kisses on her lips for the author of her suffering. Heaven and gentle Spirits watch over! The child is born. Born in the midst of joy and tears! Born as millions have been born before, in full accord with natural processes, which were developed into life and power when woman ate the forbidden fruit and "men became as gods, knowing good and evil." Born as myriads are yet to be born, to the end of time, and until the afternoon of that day upon which the last man and women shall disappear from the face of all the earth; when our bandages, ergot and instruments shall be forever laid aside, and the agonies of childbirth give place to the production of the race of "spiritual bodies," the immortal children of the "new birth" in a new world, without pain, without death and without sorrow.

Conception, gestation and birthhood, are the sublimest manifestations of the God-power among men! Let no man uselessly or profanely invade the divine arcana of man's reproduction! The birth of a living child is the general climax of creative wisdom! Why may not the gods and men mingle their voices in joyful thanksgiving over the entrance of an immortal being upon the shores of time?

Let us, then, as conscientious obstetricians faithfully watch at the portals of human existence, and tenderly welcome each trembling voyageur as he is launched forth upon the sea of human life! Let our pride in and our love and affection for our high profession, manifest their best fruits in our tender and loving regard for our fellow men, and especially for the mothers and babies "whom we have always with us." And above all, let us never forget, that in the faithful performance of the responsible and delicate duties of obstetric practice, there is scarcely a sug-

gestion from the poorest and most illiterate midwife that may not have some practical good in it, and that there is no idea however new or simple concerning the management of labor and the treatment of parturient women, that may not, at some time, in our professional experience minister to the comfort, relief or safety of our patients in the lying-in chamber.

Finally, gentlemen, let us be watchful over those confided to our care. Let us keep our hearts pure and strong to do our whole duty in our ministrations of mercy; our brain steady, our hands unpolluted, soft, sympathetic and intelligent! Let us "watch, therefore, and be diligent," for in such an hour as he thinks not some one of us may become the honored savior of some good woman's life, and the medical father of one who will eventually lead his fellow-men through paths of knowledge and virtue to a glorious deliverance from ignorance and sin, who with heart and mind consecrated to the good of the human race, will scatter the blessings of his beneficent life-work among the sons and daughters of men!

ST. LOUIS MEDICAL SOCIETY.

SATURDAY, MAY 1ST, 1880.

Sunstroke.

DR. JOHNSTON, referring to Dr. Hurt's paper: I think it requires some other conditions besides the heat developed by the solar rays to produce sunstroke. The people in North Africa, where the thermometer runs up to 125° are not much subject to sunstroke. It may be owing to the fact that the inhabitants retire in the shade from 10 A. M. to 4 in the afternoon.

When I first came to this city, some 25 years ago, it was a heated summer and terribly severe, both upon men and animals, and the omnibus carrying sunstruck people was a common sight. In seasons in which sunstroke is frequent, people suffer from want of oxygenation of the blood, and it is that influence which induces this phenomena.

Cochran reports cases in which the men fell under the intense heat as if they were struck by lightning. I presume the excessive heat striking the brain and passing down the spinal cord produced paralysis. The brains were found deficient in blood. So that you can have sunstroke from the direct rays of the sun, acting upon the brain and nervous system, when men fall as if they were shot. That form of sunstroke is not very prevalent in this city. Now whether this disease depends upon a deficiency of oxygen in the atmosphere, and the tissues of the system are not properly oxydized, and hence there is an excess of carbonic acid in the blood, would induce this phenomenon, is not demonstrated, but there is a strong presumption that such may be the case, combined with what we call malaria.

DR. POST—In accordance with Dr. Hurts views, Flint in his "Practice" speaks of treatment by direct bleeding in his cases, and gave very strong evidence of its being successful. There was a point in Dr. Hurt's paper of sunstroke being due to renal poisoning. That is a point upon which I would like to hear something from other members of the society.

DR. HUGHES—I have seen no occasion since summer before last to change the view then expressed that sunstroke in its ordinary phases is primarily a failure or exhaustion of the

sweat nerves and glands; that this is the primary and characteristic phenomenon of sunstroke—with more or less general nervous exhaustion there is primarily a failure of the sweat nerve centres—that preside over the sweat secretion. I long ago gave up the hypothesis that it consisted solely of a deoxidization and hypercarbonization of the blood, though this condition is one of its usual results. The atmospheric conditions which cause sunstroke cause first innervation at the sweat centre and peripheral nerves that control the sweat secretion. It is not the sudden elevation of temperature nor is it the direct rays of the sun which produce the phenomena of sunstroke, but in a season when sunstroke is most prevalent it occurs rather after a prolonged and somewhat elevated temperature than after a sudden and short elevation of temperature simply. It must be sufficiently prolonged to produce a condition of innervation, and in a season when sunstrokes are most prevalent those who are fortunate as to escape being stricken down by the heat, nevertheless often feel peculiarly the depressing influences of the prevailing atmospheric conditions. It would be a long and tedious process to give all the data which have been presented to this society heretofore upon this subject. The paper of our lamented Dr. Kennard, the paper of Dr. Ford, and my own paper upon the subject, would require too long a time to give even in synopsis. I think there are no instances recorded, at least I have seen none, where the prostration of sunstroke took place without a paralysis of the function of sudation. It has always been remarked that when an individual fails to sweat well during the hot season when sunstrokes prevail, he is likely to become stricken by the heat. When he becomes so completely prostrated that he falls down unconscious or becomes delirious, it is then discovered that the cutaneous surface is dry and that the protecting influence of evaporation fails. Nature throws around a healthy man the protecting influences of evaporation; as the temperature increases about a healthy man the perspiration and evaporation with its abstraction of heat and cooling influence on the surface beneath increases; when the heat becomes so intense and prolonged as to exhaust or paralyze the sweat glands the evaporation ceases. Nature's walls of defence are thrown down and the invading heat penetrates to and impairs the vital organs within. I do not deny that you may have all the phenomena of carbonization of the blood, and that you may have the various

stases in many of these cases, in the secondary stage of all of them perhaps, but it is well known now that congestion of the brain such as was formerly supposed does not so generally exist as congestion of the lungs. When you have paralysis of the nervous system, you are prepared then for the attendant stases in the circulation, and you may have a paralysis of respiration, and of the heart. But the beginning of sunstroke is the failure of Nature to throw out her protecting wall of evaporation, and the sentry at the outposts are driven in and the defensive walls of resisting forces are broken down.

DR. JOHNSTON—Two years ago I read with considerable interest the theory the gentleman has originated, and for that I must give him credit. I like to see men of genius originate, strike out from the common path which the many follow. But when I bring this theory to the crucial test and analyze it, and test it by parallel cases, it falls to the ground. Every one knows that in scarlet fever the temperature rises higher than in any other fever we are subject to, and yet there is complete paralysis of the sudatory glands. Every one knows that in typhoid fever for days and weeks there is a paralysis of the sweat glands. Every one knows that in paralysis of the nervous system, the patient sweats to death. And those conditions in which there is paralysis of the sweat glands all differ very greatly from sunstroke. Can not sunstroke be explained rather by the theory that heat and electricity being the same substances under different modes, and a certain amount of heat, like a certain amount of electricity, when brought to bear on the system, will inevitably kill. It is more reasonable to go back to that theory that sunstroke is the result of the direct rays of the sun producing paralysis of the nervous system.

DR. HUGHES—It is true that in the fevers of which Dr. Johnston speaks, there is sweating where there is great debility, but sweating in fevers is exceptional, and in inflammatory rheumatism, likewise sweating accompanies a rise of temperature, is so in a number of the prostrating fevers, or rather in certain stages of them. In the case of fevers the heat acts from within. It is in the current of the blood and when the heat reaches certain nervous centers it impresses them so as to irritate and paralyze them. The first effect of peripheral heat is stimulation and increased action of the sweating process as we see in hot weather;

there may likewise be some conjoined innervating electrical conditions. It does not devolve upon me to explain how sweating may take place in fever or how the sweating function ceases in fever. It may cease in consequence of the presence of some toxic paralyzing influence impressing the sweat centers and the use of temperature may be the result of the retained heat of rapid disintegration, or the high blood heat may be sufficient in the one instance to stop the sweating process, and in still greater excess of heat to so influence the vaso-motor system as to let the watery exudation take place from the blood vessels and permit of vascular stasis and inflammatory congestion.

In the instance of sunstroke, the heat comes from without, and it is only after perspiration ceases to fortify the system against the inroad of the heat that the individual succumbs. The negro on the plantations in the South, the meshes of whose kinky wool retain a wall of moisture about his head in the heated season, known as a good prespinner and a proverbial sweat machine, is seldom if ever stricken down with heat.

When soldiers, on the march, complain that they do not sweat well, if the heat is excessive sunstrokes are imminent. I am very much obliged to Dr. Johnston for these observations, on the fact that the high temperature of fever is capable of paralyzing the system. In heat prostration, if you can only get the sweat process to take place upon the surface of the body so as to furnish evaporation from within, then you may protect your patients against the consequences of an overheated blood. But in fevers unfortunately that is not the case; the heat is already in the system, and the prostration is going on. Nevertheless, if by proper remedies—antiphlogistics as they are called, you lower temperature an active and salutary perspiration takes place.

I suppose in those exceptional fevers and stages of certain fevers, when sweating takes place and is not followed by improvement, the perspiration is only the result of reflected peripheral irritation from rapid surface disintegration and the evolution of heat there.

DR. PREWITT—I would like to ask Dr. Hughes if it is an established fact that in all cases of sunstroke there is a cessation of perspiration.

DR. HUGHES—I take it for granted that this is a universal

observation in regard to the precursory stage. It has been observed over and over again, and I have never seen it successfully denied.

DR. PREWITT—It occurs to me that Dr. Hughes makes a distinction without a difference. Why should there be a difference in the effect of heat upon the nervous centers, whether the heat be generated from within or from without? Unless Dr. Hughes can prove that the solar ray *as such* has some specific influence in the production of sunstroke.

DR. HUGHES—I do not assert that the heat of a fever always acts directly upon the sweat centers. No one has ever attempted to establish that as a fact; but it is an undoubted fact that the presence of a high temperature in the blood will produce an impairment of the activity of the internal organs, modification of the heart's action, psychical symptoms.

DR. PREWITT—What is it that produces a paralysis of the nervous centers, if it be not the heat?

DR. HUGHES—I have distinctly asserted that it is paralysis of precursory irritation of the nervous centers that affect irregularly the activity of all the vital organs in fever. It is probably the influence of heat upon the cells of the cerebral cortex which produces the delirium of a fever. The heat of a fever will produce paralysis of the sweat centers, or on the contrary we have every reason to believe that there is nothing more in these exceptional perspiring fevers to cause perspiration than a slight irritation of the sweat centers, thermal or toxic.

Now to my mind, the objections made by Dr. Johnston, seem a confirmation of the views which I have taken, that in a fever the heat is already within the system, has passed the outposts and gained admission into the very citadel of life, has attacked the vital organs and produced a disturbance there. It is not necessary for me to explain why it is that in some of the fevers there is no implication of the sweat glands—in others that the sweating process is arrested. But there is a vast difference between the phenomena of a sunstroke and the phenomena of a fever. The heat proceeds withinto attack the organs at once, and there is disturbance of the heart, there is the disturbed cerebrum, and as a rule the eliminating organs begin to feel the presence of the increased temperature. This comes from within. But in sunstroke, long before the delirium is manifest, when the sunstroke is approaching, you have

a failure to perspire. In all the cases which I have observed, in all of which I have read, when your patient succumbs, his perspiration is often found to have disappeared, and if you have conversed with him before he has fallen a victim, he has told you he does not sweat well, and then when you begin on your treatment, you dash a little cold water upon the top of the head and down the spinal column, by preference you produce the stimulating reactionary effect. If you are successful in your treatment you do not apply your cold water too long, and if in addition, you put ice or ether on the top of the head, and give him aqua ammonia or a little brandy for the nervous system, you are generally rewarded by successful results.

DR. MCPHEETERS—I confess, Sir, that as far as I understood Dr. Hughes theory, it seems to me as satisfactory an explanation of this phenomena of sunstroke, as any that I have heard before, or read of. I do not believe that Dr. Johnston's so-called analogous cases are analogous cases.

There is a great difference, as Dr. Hughes remarks, whether the heat is from within or from without. In the case of these high temperatures in fevers, the changes which take place in the system are so gradual, that the organs are to some extent able to adapt themselves to it, whereas in sunstroke the heat is so sudden, rapid and overpowering, that the vital forces sink beneath it. In sunstroke the person is stricken at once, whereas in these high temperatures it exists for hours and days, and the system has time to adapt itself to some extent. Now, we know there is a sweating point, there is a point of low temperature in which there is no perspiration; then it goes up too high, it is above the sweating point. An excess of heat will prevent perspiration. I do not know whether the fact is, that sunstroke takes place more frequently in a condition of atmosphere, which is unfavorable to evaporation, but we all know that we suffer more in a humid condition of the atmosphere than we do in a dry atmosphere, for the simple reason, that a dry atmosphere favors evaporation of the perspiration, and so induces a cooling of the surface of the body, and prevents the ingress of the heat, whilst a humid condition of the atmosphere has an opposite influence; and we suffer more in a rather heated atmosphere which is also humid, than in one in which the temperature is higher, but which is less humid.

DR. BERNAYS—I believe that the explanation of my friend Dr. Hughes, regarding the phenomena of sunstroke, is a new one. I think also it has a great many points in its favor; it is very plausible, and catching. Since I have heard the Doctor explain it, I have adopted it, because it explains certain phenomena which I could not understand before. Sunstroke never occurs during a cool term, therefore it is caused by heat—that is a proposition which no one will deny. But exactly *how* heat induces sunstroke is quite another question. Dr. Hughes asserts that sunstroke is a paralysis of the sweat centers, and when he says it is caused by the continued action of high temperature on the human system, and then goes on to say that this high temperature can not act upon the system as long as there is perspiration, and that whenever perspiration stops the heat overpowers the system, he makes a new and very true proposition. I know of a case, recently, where a young man after dancing violently had myelitis and paræsis of the lower extremities. In the same way it is possible that after the sweat glands have been caused to act continuously for four or five days that they will be paralyzed, that they can no longer secrete sweat in proper quantities; then we can understand, if the heat continues, that the temperature of the air will be communicated to the body and the phenomena of sunstroke will occur.

DR. ADOLPHUS GREEN—If a person ceases to sweat, is the cessation of sweating always to be referred to the paralysis of the perspiratory glands? May it not be accounted for by the fact that there is not sufficient water in the system to supply perspiration? May not the amount of water in the system of a person exposed to a high temperature for a long time, become finally exhausted by the continual and rapid evaporation, so that at length the sweat glands have an almost empty reservoir to supply them? We know that some men working in the sun cease to sweat, but when they drink plenty of water they begin to perspire.

DR. PREWITT—The theory of Dr. Hughes is a very fascinating one, if it can be proven. But what evidence have we that the blood before sunstroke has not already become so heated as to produce a paralysis of the nervous centers. The question is, is the paralysis of the sweat centers the cause of sunstroke, or is it merely a phenomena connected with this state.

DR. HURT—I cannot assent to the proposition that paralysis of the sweat glands has undoubtedly been proven to be the cause of sunstroke. My idea is, that if the nerves presiding over these glands were paralyzed all the water in the blood might go out.

SATURDAY, MAY 8TH, 1880.

Instruments for Dilating the Womb.

DR. BERNAYS showed to the society some instruments for dilating the womb. He said: "These are instruments for dilating the womb, of a conical shape, and are of different sizes, beginning with very small ones and gradually getting larger, until they are sufficiently large to be used as specula. They were originally constructed by Prof. Simon, of Heidelberg, for the purpose of dilating the female urethra. About two weeks ago I was called to see a case of miscarriage. I got tired of waiting for the womb to dilate and I used these, one after another, and the miscarriage came off very satisfactorily. In the course of half an hour by means of these little instruments used in succession you can dilate the cervical canal of the womb and get your finger into it. That is a fact which I consider somewhat surprising. No one, two years ago, would have supposed such a thing could be done. This is a much more cleanly means than the sponge tent, and there is no chance of any infectious mass of pus closing around these instruments. The process is very easy, and is painless. Even without chloroform you can use these instruments and pass them into the womb without causing the patient much pain."

Hernia of the Transverse Colon.

DR. STEVENS—If there is nothing of greater importance to engage the attention of the society I desire to present a case which I think has many interesting points. I report it from notes taken at the time of my observations. I was called by Dr. John Laughton to make the dissection in an examination of the body of Police officer Holton. Besides Dr. Laughton, who had been the attending physician, there were present Dr. Thompson and Prof. Ellsworth Smith. About a year before death, and while

in the performance of his official duty, Holton received a stab, made with a pocket knife. The wound was on the left side between the 8th and 9th ribs and about four inches from the sternum. The wound healed readily and without any alarming complications. After a few days, just at the site of the wound, there appeared a soft, reducible tumor, about the size of half a hen-egg but causing no inconvenience. He returned to his occupation and continued to perform his duties for several months; in fact, till within a few days of the time of his death. The death was caused by entitis and was not attributed to the lesion mentioned. In the long interval between the time of the injury and his death the case excited considerable interest and there was a wide difference of opinion as to the nature of the tumor, the majority believing it to be a hernia of the lung; only one or two, as the sequel demonstrated, formed the correct diagnosis, viz.: A hernia of the transverse colon.

Upon opening the cavity of the chest a most remarkable displacement of thoracic and abdominal viscera was apparent. The stomach with its greater curvature upwards, was the first object in view; the left half, at least, of the transverse colon was above the plane of the diaphragm; the heart was found backward from its normal position, and the lung diminished by at least four-fifths of its usual dimensions driven to the extreme upper part of the cavity, and presenting more the appearance of a spleen than of a lung. It was wholly impervious to air. The right lung seemed to have expanded and have forced the mediastinum to the left of its normal location. The diaphragm of that side seemed to have almost disappeared; only a vestige remained showing its marginal attachment. You will readily form an idea of the enormous distension that had taken place in order to admit the passage upward of nearly the whole of the stomach and a large section of the colon.

This then was the state of things as revealed by the autopsy. Our conclusions were as follows: That the knife first passed through the integument and inter-costal structures, entering the pleural cavity during the act of expiration, the lung escaped injury; the blade then passed through the diaphragm without wounding any viscus beneath; that at first, a small section of either the colon or the stomach entered the opening in the diaphragm, and then by slow advances, so slow in fact as not to be perceptible to the individual himself, and so slow that the natural

functions of the various organs implicated had ample time to conform their compensatory or other actions to the gradually changing relations. Probably it took weeks or months to work out the entire revolution.

A rather interesting fact was mentioned by the attending physician, that the patient frequently vomited during his illness. Of course this must have been performed solely by the contraction of the muscular fibers of the stomach and without the action of the diaphragm and abdominal muscles.

Reflex Causes of Disease.

DR. PORTER—I have recently met with a case which is an example of a class which I think is frequently met with, though not always understood. It is one similar to three others that I have seen, and that I reported last winter in the *N. Y. Medical Record*. This case is that of a lady somewhat advanced in years, possibly 55, who has had asthma, and has suffered during the last few years very acutely with great pain in the chest, and the paroxysms have come on very frequently. For years she has resorted every night to chloroform, and during the day smoked a number of cigarettes of stramonium and nitrate of potash. While in this city some time ago the paroxysm came on so severely that she sought the advice of a physician. He found in her nose a large polypus, which he removed. She said that after the paroxysms seemed to be better for a little while and then again returned. On examination I found the nasal pharynx crowded with small polypi of the usual kind, and when I detached them with a probe a paroxysm of asthma was immediately induced. The whole naso-pharynx was excessively sensitive. Literally she did not breathe through her nose at all; when she closed her mouth respiration was entirely obstructed. I removed 27 polypi. They were clustered together and in layers. The roots of the polypi were removed in the ordinary manner by the forceps. The mucous membrane was very much degenerated, the whole mass being soft and mucous. I injected it with a strong solution of carbolic acid, which caused the whole mass to shrivel up. I do not report this case with regard to the surgical treatment, but from the fact that so soon as she was able to breathe through her nose at all, her asthma began to disappear, and so soon as respiration was entirely restored and for the last ten days, she has not had an attack of asthma. She no longer uses chloral or the cigarettes, is gaining health and flesh, her

cheeks begin to look a little flushed and I believe I am justified in telling her she will get entirely well. In examination of the lungs I found nothing defective in the lung tissue itself. The other cases are cases similar to this. One was a case of polypi in the naso-pharynx and the symptoms were similar to the symptoms in this case. In this second case the polypi and the asthma returned; but when the polypi were entirely destroyed the asthma ceased and has not returned. The other case was that of a calculus in the left tonsil of long standing in a gentleman. Since this has been removed the asthma has decreased and to-day the patient is entirely free. I believe that the study of asthma as the result of reflex irritation is most interesting and profitable. I believe that there are many cases of asthma which can be entirely cured, and I think that those cases which cannot be cured, are not likely to be much relieved by any treatment. Reflex irritation is a powerful factor in these cases, and must be treated before anything can be accomplished.

DR. HUGHES—Upon looking over the literature of medicine, and scanning it carefully during the last few years, I have come to the conclusion that we are living under the reign of the reflexes. For it is undoubtedly a fact that medical literature to-day, teems with clinical illustrations of the potency of reflex causes of disease in remoter parts of the system. We have the uterine and ovarian reflexes in abundance; in fact it is getting now to be pretty much a stock in trade with our gynæcological brothers; we have uterine psychosis, and neuroses without number. The danger to be guarded against is to avoid treating every other locality but the exact locality of the disease.

Now it is an undeniable fact, that formerly the potency of reflex action was too much overlooked, and while we should constantly seek for possible sources of reflex irritation when we encounter disease which implicates especially the nervous system in a particular locality, we should not lose sight of the fact as perhaps we are likely to do, because this is a somewhat recent clinical discovery that the disease may have its origin in the place in which we find its symptomatic manifestation. Now how common it is to go to the bedside of a patient, suffering with hysteria, to make the discovery that the disease is not in the brain, but that the ancient conjecture is decidedly correct that it was in the uterus or rather in its appendages? How common is it to find it the fact that a pressure exerted upon the ovary of

an hysterical female during a paroxysm will result in the prompt cessation of the paroxysm, the cardiac irritation, the cardiac palpitation, and cerebral disturbances. Even hystero-epilipsia may be relieved in this way, when it has for its potent cause a congested ovary.

DR. WILLIAMS—Under the head of reflex irritation I will relate a case which may be found of interest. A lady some years ago, living in Frenchtown, had an intense head-ache, supra-orbital neuralgia, so-called, involving the whole surface of the head. She was suffering so severely that she embedded her head between two feather pillows, and could not endure to have the cold air get to her head at all, on account of the intense pain that it caused her. Her daughter happened to be a patient of mine at the time, and one day whilst in my office she told me about her mother's complaint. I asked her a few questions in regard to the complaint and at last inquired whether her mother did not have some bad teeth. She replied "yes," and I advised her to have them extracted, which was done, and was followed by prompt and complete recovery.

DR. BERNAYS—I was called sometime ago to see an actress who was said to have spasms. Upon arriving there I found this lady in the arms of a gentleman belonging to the troupe and she was laughing and crying alternately, and sometimes she would have a spasm. It was evidently an attack of hysterics. I laid her upon a lounge and passing my hand under her garments exercised a deep pressure on the ovary and from that very moment she became as if paralyzed; she stopped crying, became quieted, and fell asleep, and after I had remained there about ten minutes she was still sleeping. Before I left the room I asked one of the gentlemen what had brought on the attack, and he told me that she was engaged to be married to a gentleman who had written to her a letter, breaking off the engagement, and the attack had come on. Now the point is, that this letter would not have caused irritation of the ovaries, whilst at the same time pressure on the ovaries released the attack which followed the receipt of the letter. It is very plain, therefore, that the excitement of the nervous system was the source of the ovarian irritation, which was reflected again on the nervous system, producing hysteria, and which being relieved, the hysterical state passed away.

SATURDAY, MAY 15, 1880.

Obstruction of the Urethra.

DR. BERNAYS reported the following case: I was called last Tuesday to see a patient who had been out on a spree all night, in which he indulged in great sexual excesses. I was told that the patient had been suffering from a complete retention of the urine ever since. I saw the patient, and found a condition of uræmic poisoning, and upon local examination, I found calculus firmly lodged and impacted in the urethra about five or six inches down the meatus, causing complete obstruction of the urethra. The bladder was dilated above the navel and could be felt as a large tumor in the abdominal cavity. I gave it as my opinion that the patient would probably die on account of uræmic poisoning, although his life might have been saved had he called for a physician earlier. But I relieved him somewhat by tapping the bladder above the pubes, emptying its contents, hot applications and morphine (hypodermically).

Upon my return next day there was no amelioration of any of the symptoms. I got every thing ready to cut out the calculus, but when I returned the patient was *moribund*. The specimen is here (it will not detract from the interest of the case to state that the patient was a coach dog.) There is an ulcer at the apex of the bladder ready to perforate. The pelves of the kidneys are filled with calculi, and the calculus which caused the obstruction will be found in the urethra.

Inhalation of Benzoate of Soda.

DR. MCPHEETERS—The subject of inhalation for phthisis is not a new one. It has been known for the last 50 years, was highly recommended by some, but subsequently abandoned by inquirers. The fact is the lungs are adapted to atmospheric air, and to nothing else. In the three first cases cited by Dr. Porter, I can not, for the life of me, see where there are any grounds for concluding that the benzoate of soda did any good. He used it in addition to other remedies. I should say that if I recollect his treatment of those cases, that the only thing that could be said of the benzoate of soda as regards the improvement in those cases, is, that it did no harm. I can mention two cases very sim-

ilar to those related by Dr. Porter where the condition was quite as marked, which improved under the ordinary treatment for phthisis, without the use of the benzoate of soda, and I think the doctor's treatment would have been quite as successful if he had not used benzoate of soda. In my judgment, any substance introduced into the lungs or bronchi besides *air* is injurious, and only injurious. In very severe cases of affections of the throat and larynx, I have used inhalations of hot water with a little tincture of benzoic acid, which was greatly diluted, and have found some benefit to the results from it, and since then I have been in the habit of using it in phthisis of the throat larynx.

DR. HODGEN—I most heartily endorse the conclusion of Dr. McPheeters, but I find fault with his argument. To simply state that the lungs are adapted to the inhalation of air, and *nothing else*, is not to prove that it is the truth. To insist that because the lungs are *adapted* to the inhalation of air and nothing else, that therefore, the inhalation of benzoate of soda could do nothing *else* but harm, is unwarranted.

DR. RUMBOLD—I think that Dr. McPheeter's is right in saying that the normal fluid of the lungs is air, and even if Dr. Porter did give relief from inhalation of benzoate of soda, it was only by substituting an agent that had a less irritating effect on the lungs than the disease itself. The patient would have been injured by the inhalation of the benzoate of soda if he had been entirely healthy; but when the lung is diseased, the remedy given, especially as it is an anti-zymotic, may prevent the irritating secretions from injuring the patient, and thus help him.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

THE MANAGEMENT OF A DIFFICULT LABOR. By D. S. BOOTH,
M. D., of Sparta, Ill.

About 5:30 A. M., September 18, 1879, a courier handed to me a note, the contents of which were as follows: "Dr. Booth—Dear Doctor: Come immediately to Mr. John W.'s to meet Dr. Homan and self, to deliver his wife. It is a shoulder presentation, and the child must be separated to be delivered. So bring instruments for the purpose. Signed: Homan & Wilson." At or about 6:30 A. M. I arrived at the house designated in the note, and proceeded to make a full and complete examination of the patient with the following result.

Mrs. W. was a multipara, this being her second child, aged about twenty-five years, and a very large, muscular woman.

At the time of my arrival she had been in labor about 72 hours. During the first 48 hours she had been in the charge of a midwife, who, becoming alarmed at the delay, sent for Dr. Wilson. After the doctor's arrival, he made a number of unsuccessful efforts to deliver, by the usual means, and then he sent for Doctor Homan, and the two physicians, after numerous unsuccessful efforts to relieve the patient, sent for me. Upon making a vaginal examination, I found the left arm entirely without the vulva, cold and almost black; the right hand was also without the vulva, and no radial pulse in either. The left axilla under the symphysis of the pubes; and the right axilla beneath or below the promontory of the sacrum; the back of the fœtus to the right ilium, the abdomen to the left. This presentation could not be called a dorso-pubic, neither could it be called a dorso-sacral, as the shoulders occupied the antero-posterior or conjugate diameter of the inlet. This will be easier understood when we consider that the patient had a very pendulous abdomen, and that the long axis of the fœtus was at an angle of about 45 degrees to the plane of the inlet, presuming the pelvis to stand at an angle of about 160 degrees to the horizon. I am led to believe that both shoulders entered the inlet in the oblique diameter, or more properly, one, then the other followed; and that after the rupture of the membranes, which took place

some fifty-two hours before my arrival, the fœtus was forced by the tetanic contractions of the uterus downwards, and with the resistance offered by the head of the child at and over the left coryloid fossa or acetabulum, the fœtus was made to rotate until the axillæ were made to occupy the places above described or given. Be this as it may, they certainly occupied the point designated at the time of my first examination, and this I regret, as I cannot find a similar case described by any author at my command.

At the time of my arrival the mother's decubitus (at the time of my arrival at her bed-side) was upon her back, and her position did not make any perceptible difference in the position of the fœtus, that is, as to the uterine angle. I did not use the binder, or the pillow. The first I thought to be contra-indicated at the time, by reason of the extreme tenderness of the parts concerned in action, and the powerful tonic contractions of the uterus, and pressure would have certainly aggravated the latter; and as to the pillow, I did not believe that it was indicated in this case, from any logical standpoint.

The chin and face of the child were almost flattened against the breast of the fœtus, by the tetanic throes of the uterus. The acronion process of the left scapula was well marked, and the most dependent, the spine of the left scapula, easily made out, as also the clavicle of the same side, the first to the right and the latter to the left ilia. By placing the fore-arm of the presenting arm in the *supine* position, *the thumb was directed to the patient's right thigh, and the little finger to the left.*

It is said that under these circumstances the transverse diameter of the uterus can be recognized as greater than the longitudinal, by external taxis: (Hodge.) But this would not apply in this particular case, for the several reasons given above, and I very much doubt the force of its application in very large, fleshy women, as this one was. The spinous processes of the upper dorsal and the lower cervical were very prominent, more particularly the spinous process of the vertebra prominens, of the seventh cervical. It felt almost like a morbid exostotic growth, and situated nearly in the center of the parturient canal, laterally and longitudinally.

The funis was also presenting, several inches of which was hanging without the vulva, cold and without pulsation. The pelvis was of good capacity and well formed, and the soft parts

fully dilated and quite soft. After making certain that the bowels and bladder were clear, and there was not any contra-indication to the use of an anæsthetic, we placed her upon her breast and knees, and then proceeded to give her chloroform to profound anæsthesia, short of stertorous breathing, after which I proceeded to practice the bimanual proper, and then the internal and external bi-polar, or more correctly speaking, the different forms of the bi-polar methods of turning. I have no doubt, but some gentleman present may doubt the propriety of either of these methods in this case at this stage of affairs, first because the liquor amnii had all drained or passed off many hours before, in fact, near the beginning of her accouchment, and further, the uterus was firmly contracted concentrically and longitudinally about and around the child. I will answer why through Dr. Barnes. He says: "But I am in a position to state that among upward of one hundred and fifty cases of turning of which I have notes, there was scarcely one in which I did not turn the bi-polar principle to more or less advantage; and in not a few cases of extreme difficulty from spasmodic concentric contraction of the uterus upon the fœtus, with jamming of the shoulder into the pelvis, where other practitioners had been foiled, I have, by judicious application of this principle, turned and delivered safely."

The child being dead, head-turning could avail nothing to the advantage of the child, but, gentlemen, please remember I was very willing to accept either head or feet-turning, and that too, by the easiest, simplest and quickest method or route known.

The physicians who preceded me had attempted to decapitate before sending for me, but had failed for the want of the "necessary instruments," so they informed me; and this attempt might have had something to do with the condition of things at the time of my arrival, viz., changing a curve into an angle, or it might have been caused by the powerful and prolonged uterine contractions, but I believe the most probable cause to have been pulling at the child's arms, hoping to deliver by this means before sending for a physician. This, of course, means an allusion to the midwife.

She might have succeeded in pulling off both arms, but she could not have delivered this child by that method, as the fœtus was very large. I estimated it to weigh not less than twelve pounds.

I soon found that the foetus was so impacted and wedged into the pelvis that it was impossible to dislodge it; with one hand within the vagina, and the other upon the abdomen over the fundus of the uterus, acting together, but in contrary directions, I failed to make any impression upon the presenting part or foetus. I even failed to return the arms or hands into the uterus.

At this stage of the proceeding I concluded to attempt to practice version by the usual method, and this I found to be impossible, by reason of the pelvis being already fully occupied by the child.

The child being dead, and in fact had been for many hours before my arrival upon the battle field (please allow me this little bit of pleonasm), I amputated the left arm at the shoulder, and again attempted the bi-polar method, but without avail. Then I tried to introduce my hand to turn, but I found it impossible, for the reason before given. I then amputated the other arm at the shoulder; after which I introduced, with much difficulty, my right hand up to the feet of the child; but, owing to the powerful uterine contractions, my hand and arm was completely paralyzed: even the sphincter vagina would constrict (so appeared to me) my arm like a cord, and I was powerless to do anything. At this stage of the proceeding I found a new difficulty, in the position of the child's feet. They were crossed and locked, and occupied the highest part of the fundus of the uterus, and forced down upon and across the child's buttocks. After making a number of unsuccessful attempts to bring down the feet, I thought I would try a little strategem. I introduced a long blunt hook up along the side of my arm, as a guide, until it reached the popliteal space of one of the child's legs, the one easiest reached, passed the hook behind the same, and with the fingers of the hand within the uterus, as a protector to the soft parts of the mother, I succeeded in bringing down one leg, and immediately afterwards the foot of the same. I threw a clove hitch around the ankle of this leg, and then attempted, by a combined action of both of my hands, one within to force the presenting part upwards, and the other grasping the ankle to turn, but in this I signally failed to make any impression upon the position of the child. I should also state, that Dr. Homan rendered me all the assistance in his power, by external

manipulation, but our combined efforts proved insufficient to dislodge the child from the grasp of the uterus.

When the child in utero is living, I make it a rule to seize and bring down a knee, in preference to a foot, and that one which is farthest away. But when the foetus is dead it is best to bring down both legs; here the spine has lost its elasticity, the body will hardly turn, and there is nothing to be gained for the child in maintaining the half-breach and preserving the cord from pressure.

At this stage of the proceeding I became exhausted, and Dr. Wilson coming in fresh, I directed him to introduce his right hand, following the cord, foot, leg and thigh of the limb then under control, until he should find the other limb, and, when found, bring it down. After great labor he succeeded in doing so; when I again took charge, and delivered the child without much more trouble.

There are several unique, at least rare points, belonging to this case. I shall take them up numerically, hoping to provoke discussion upon them, that I may be benefitted thereby.

1st—The presentation: of this I have probably said enough.

2d—The position of the uterus in respect to the antero-posterior plane of the inlet of the true pelvis, produced, I think, by the pendulous abdomen. This case would be classed with the "Cross Births of Hippocrates." The axes or long diameter of the fetal oval is thrown across the womb—the most unfavorable position which could by any possibility be selected. (See "Leishman's System of Midwifery," America edition of 1876, page 341.) This is the universal opinion of writers from the birth of medicine to the present time.

3d—The ovoid, if I may be allowed to so designate it, being downwards and forwards, and not transverse, as given by writers generally.

4th—The position of the lower extremities of the foetus. Being placed at the farthest point possible from the vulva, it made it very difficult to reach them; in fact, it required the introduction of the entire length of my arm to do so.

5th—The tetanic like contractions of the uterus throughout her entire accouchment, even under forbidding conditions, viz.: The fetal position was against it; Thomas' knee and elbow, or breast position, was also against it; and, lastly, at the time and during the profound anæsthesia.

Dr. Barnes' article, "Pendulous Abdomen in Labor," says that the uterus, if not paralyzed, acts in a wrong direction. It loses the stimulus to action, which the normal pressure and support of the diaphragm and abdominal walls supply, and therefore acts languidly.

"Its independent power is also weakened by another circumstance. It is a law of which in the progress of difficult labor, that whensoever a mechanical obstacle is encountered, before long, the uterus, conscious, as it were, of the futility of its efforts, intermits its action, takes a rest, lies dormant, until the time shall arrive when it can act with advantage." And Dr. Barnes farthermore states, pages 96 and 97: "Until the uterus is brought back to its normal position, it is clear that two causes concur to render labor difficult: First, the uterus being thrown forward, its fundus carried away from the diaphragm and upper part of the abdominal walls. It loses, therefore, the aid which the expiratory muscles, acting powerfully when the glottis is closed and the chest is fixed, usually give. This expellant power of the expiratory muscle is so great that it appeared to be of itself sufficient in some cases to complete labor, the uterus remaining quite passive. When the uterus is thrown forward across the pubes, any force propagated downward from the diaphragm will strike the posterior wall of the uterus at a right angle with the body of the uterus and of the long axis of the fœtus. It will, in short, drive the uterus and its contents upon the symphysis, or even more forward still, since the body of the child, which lies in front of the symphysis, forms the longer arm of a lever, and the force is expended upon it."

Thomas' "postural treatment" was first recommended in the treatment of prolapsed funis, partly from the standpoint of gravity, and partly as a check to uterine action. As to the therapeutical action of anæsthetics in such cases, the medical profession are divided, and the matter is *sub judice*. This patient died three days after delivery, of septicæmia. At the time of delivery the discharges from the uterus were so acrid, that I was very severely poisoned, and had taken unusual care to protect myself against such a very probable contingency.

We are told that shoulder presentations occur about once out of every 260 cases of labor. The prognosis as given of 235 cases, is one in nine of the mothers, and half of the children are lost.

The prognosis in each individual case varies with the time of delivery, at which the discovery is recognized, and relief tendered by the accoucheur. From this, gentlemen, we can see the importance of recognizing such presentations early, even before the rupture of the membranes, and when discovered, act promptly. Knowledge and courage are the important factors in the accoucheur at such times. Playfair has considerable to say about "abdominal palpation" in the detection of the position of the fœtus in utero. In thin subjects, or those only moderately fleshy, it will no doubt apply, but in such subjects as the one above described, and in the kind of presentations here given, I would not risk an opinion upon it alone.

As to the vaginal, or more correctly, the presenting landmarks, I will not say anything; as all writers upon obstetrics give plain, practical common sense rules, that are easily understood and followed. There is one point belonging to shoulder presentations that I feel like alluding to ere I quit this subject, even at the risk of tiring your patience, and that is this, the so-called spontaneous evolution of Denman.

I believe that any medical man who willfully waits, and thus loses valuable time, in expectation of, as unlikely or at least as uncertain a change as this, should be held criminally responsible. Spontaneous evolution in a full grown fœtus, at full term, is, I think, a myth, or at least very rarely occurs.

Dr. Hodge doubts whether Dr. Denman ever met a case of spontaneous evolution, but that his cases were all versions. Dr. Barnes regards the process described by Denman as true version or turning, and Dr. Barnes furthermore says that all German, French, Italian and Dutch authors apply to this process the term "spontaneous version" *Versio spontanea*. He says, it might be called natural version, to distinguish it from artificial version," effected by the hand.

All Continental authors likewise call Douglas' process by the name of "spontaneous evolution," the process being one of unfolding, as it were, of the doubled-up fœtus. And medical men should ever keep in mind, that true spontaneous evolution is death to the child. "A living child is favorable to version, a dead one to evolution."

Gentlemen, in conclusion allow me, an humble member of the medical profession, to say *labor ipse voluptas, labor omnia vincit*, labor is indeed a pleasure, more particularly when di-

rected to the relief of our kind, and labor frequently conquers. It is indeed a pleasure to be able to step to the bedside of the sick, armed *cap-a-pie*, knowing our whole duty, and having the courage to perform it. And now gentlemen let us all adopt this motto: *Nunquam non paratus*.

Clinical Reports from Private Practice.

CASE OF TREPHINING THE SKULL, FOR THE RELIEF OF TRAUMATIC EPILEPSY. By D. N. RANKIN, A. M. M. D., Allegheny, Pa.

Charles H. Poole, male, white, 34 years of age, born in France, unmarried, and by occupation a butcher; complexion, eyes and hair, dark.

In October, 1857, he was regularly enlisted in the Fourth United States Artillery; served five years in it; then re-enlisted in 1862 in Washington, D. C., in the Third United States Mounted Rifles; whilst on duty in the rear of Petersburg, Va., May 9, 1864, he was struck upon the forehead by a minnie ball, and lay for some hours upon the ground in an insensible condition, before reaction supervened. He was then carried to the Cavalry Corps Hospital, at City Point, Va., and upon examination, there was found to be considerable indentation of the skull at the wounded point. Symptoms of compression being present, the surgeon in charge of the hospital at once performed the operation of trephining upon him, which relieved the violent symptoms, but did not completely cure him. He remained at the hospital for sixteen days. One night, in his anxiety to rejoin his regiment, he stole off from the hospital, unauthorized by the surgeon, returned to his regiment, and resumed his regular duties as a private, served out the full term of his second enlistment, and was honorably discharged in May, 1865.

About one year after his final discharge from the army, he commenced to lead a wild and intemperate life. In June, 1866, the first convulsion of an epileptic character occurred, and after that one fit occurred every three months, for the first year, then they become more frequent, until finally they recurred every tenth day, and, within the past six months, they have been coming on so frequently, that he had become tired of living, and frequently earnestly requested me to cut down and remove the depressed portion of bone. This I would not undertake unless, upon consultation with some other surgeon, it should be considered justifiable. On May 25th, Dr. John Dickson, Sr., an eminent surgeon of Pittsburgh, Pa., was called in consulta-

tion. After having heard the history of the case and carefully examining the condition of the patient, I was pleased to find that his diagnosis agreed in every respect with mine, and that, therefore, in his opinion, no medical treatment could be available, and the only chance of curing the disease would be the removal of the affected portion of bone from the skull.

Therefore, on June 10, at nine o'clock, assisted by Dr. Dickson, I proceeded to remove the portion of depressed bone. On the day previous to the operation, I ordered his nurse to give him a dose of sulphate of magnesia, and have the hair from the front part of the head cleanly shaven off. During the operation he laid upon a table, on his back, with head and shoulders resting upon a hard pillow. Chloroform was administered, and it was after some considerable trouble and delay, that perfect anæsthesia was procured.

The bone was exposed by a crucial incision a little to the left of the frontal sinus; the length of the perpendicular cut was about three inches, and that of the transverse one was about two inches. The incisions bled quite freely; the flaps were carefully dissected up, and great care was taken to remove the pericranium. It was necessary to use the trephine four times in order to sufficiently remove the depressed bone. The point trephined first was a little to the left of the frontal sinus; the second place trephined was a point about one and three-fourths inches to the left of the first; the third about two and one-half inches higher up the forehead, and the fourth directly above the first, the same distance from the first as the second is from the third. Then, in order to remove the oblong piece of bone, Hays' saw came nicely into use. In this way, we succeeded in removing a section of bone, say two and a half inches long, by one and three-fourths of an inch wide. It required the greatest care and patience to separate the membranous lining of the skull.

The removal of the depressed bone brought to view a nipple-shaped piece of bone, protruding from the internal surface, which undoubtedly was the sole cause of the trouble. The flaps were drawn together by adhesive plasters, allowing the lower end of the perpendicular cut to remain open for the exudation of any pus that might form. The dressing consisted in the application of carbolized water alone.

June 11 — Slept quite well during last night; quiet most of the day, from the effects of opium taken last night. In the evening, about 8 o'clock, had an epileptic convulsion, but much lighter than usual. Pulse, 72. Diet, tea and toast.

June 12 — Rested pretty well through last night. Pulse, 74. Rested well throughout the day; gave a dose sulphate of magnesia in the evening; complains of considerable pain in head, and is some somewhat restless; at 9 o'clock P. M. gave him 30 drops tr. opium; diet, same as yesterday.

CASE OF FRACTURE AND DISLOCATION OF THE SPINE. By CHARLES BLACK, M. D., of St. Louis.

Jacob Cole, a native of Germany, 54 years of age, and a watchmaker by trade, was admitted to the City Hospital, on the 15th of April, 1880, and assigned to the division then under my charge. He stated that four months previously a team, which he was driving, ran away; he was thrown out of the wagon, the back of his *head and neck* striking against the frozen ground. He was picked up, though not unconscious from his fall, and having rested in bed all night, he drove a distance of four or five miles to his home next day, feeling sore, but able to move about and use all his limbs, except so far as the generally bruised condition of his body presented. Since his accident he has suffered from attacks of giddiness (his first attack occurring on the evening of his arrival at home), and while so affected, surrounding objects lost their sharpness of outline, but otherwise were distinctly visible. He complains of a feeling of coldness and numbness, at one time beginning in the left foot and traveling up the left leg and side, and at another commencing in the fingers of the left hand and extending up the arm and shoulder. This feeling would occasionally be confined to the little and ring fingers and the inner side of the forearm and arm, or to the thumb, fore and middle fingers, and outer side of the limb; while sometimes the middle and ring fingers only would be affected. These sensations appeared irregularly, and alternated with others;—at times he felt as if his muscles were being stretched and torn, with ringing in his ears; his left leg sweated considerably, while sweating was not appreciable on the right.

On examination I found an abnormal prominence and mobility upwards and towards the right of what appeared to be the spinous process of the fourth cervical vertebra. I showed the case to the Superintendent, Dr. D. V. Dean, who directed the patient to be brought into the surgical clinic before Dr. John T. Hodgen. This was done next day, and Dr. Hodgen, on examination, directed attention to the following: On introducing the forefinger into the pharynx, a well marked prominence could be felt, evidently the projection of a body of one of the vertebrae, probably the third. The injury was presumably a fracture of the spinous process or laminae of the fourth, with a dislocation forwards of the third cervical vertebrae, resulting in a sub-acute myelitis.

The patient, at his own request, was discharged next day, his appetite and general health being good.

Book Reviews.

A MANUAL OF EXAMINATION OF THE EYES. By Dr. E. Landolt. Translated from the French by Swan M. Burnett, M. D. 8vo.; pp. 312. [Philadelphia: D. G. Brinton. 1879.]

This book, which is in the form of a course of 24 lectures, said to have been delivered before a class at the *école pratique*, in Paris, leads the reader pleasantly and somewhat rapidly over a rather wide range of subjects, any one of which might afford the material for a separate monograph. For the ophthalmic specialist, or even for the special student of ophthalmology, it is necessarily too superficial to be of much value, while for the general practitioner it must needs be supplemented by other works devoted, respectively, to the anatomy, physiology, pathology, therapeutics, and operative surgery of the eye. Of the character of the work there is little to be said but in its praise, whether as regards the judicious balance of its parts or the generally accurate and lucid way in which its several subjects are treated. To the physician who has the means and inclination to provide himself with more than the single fundamental text book which is generally made to fill the ophthalmological alcove in the professional library, Dr. Landolt's book may be warmly recommended, as both interesting in itself, and, especially, as affording indication of the scope and accuracy of the work which now falls to the share of the educated ophthalmic practitioner.

JOHN GREEN.

AMERICAN HEALTH PRIMERS — EYESIGHT AND HOW TO CARE FOR IT. By GEORGE C. HARLAN, M. D., Surgeon to the Wills' Eye Hospital, Etc. [Philadelphia: Lindsay & Blakiston, 1879. Small, 12mo.; pp. 139.]

In this little volume Dr. Harlan has given the best popular *résumé* that we have seen of such facts, relating to the anatomy, physiology, pathology and hygiene of the eye, as are likely to interest and profit the intelligent general reader. The book is not in the least calculated to make "every man his own eye doctor," but it will serve the infinitely better purpose of teaching that certain imperfections and disabilities, connected with the use of the eyes, are both amenable to proper treatment, and often dangerous to neglect. It teaches also another lesson, viz.: that the injudicious selection and use of spectacles and eye-glasses may be productive of great and even irremediable mischief, and that the watchmaker and jeweller, or even the special vendor of spectacles, thermometers and opera-glasses (the so-called "optician") is presumably not better qualified to

prescribe glasses than is the country storekeeper or the city "apothecary and chemist," to prescribe the medicine which it is his business to sell or to compound.

Dr. Harlan tells us (p. 30) that "infants do not shed tears before the third or fourth month." We have seen the phenomenon in infants less than a month old, and believe that it ordinarily occurs within the first month of life. On page 101 he says: "Spectacle lenses are usually made of crown or flint glass: the former is less expensive, but is softer and more easily scratched." The facts are that crown-glass is harder than flint glass, and that flint glass is not used for spectacles.

JOHN GREEN.

Books and Pamphlets Received.

Contributions to Gynæcology No. X. 1—Fibro-sarcomatous tumor of the Uterus. Operation; recovery. 2—Cancer of the Rectum. Excision; recovery. By John Byrne, M. D., R. C. S. E. Reprinted from the annals of the Anatomical and Surgical Society. Brooklyn, N. Y.

Further Contribution to the Study of Fracture of the Inferior Extremities of the Radius. Differentiation of Longitudinal and Transverse Fracture, and the causes which produce them. By L. S. Pilcher, M. D. Brooklyn, N. Y.

Time of Conception and Duration of Pregnancy. By Geo. J. Engelmann, M. D., of St. Louis.

Transactions of the American Gynæcological Society. Vol. IV. For the year 1879.

The Bromide of Ethyl as an Anæsthetic. By J. Marion Sims, M. D.

A Guide to the Practical Examination of Urine. For the use of Physicians and Surgeons. By James Tyson, M. D., Phila.

Clinical Notes on the Elongation of the Cervix Uteri. By Wm. Goodell, A. M., M. D. Philadelphia.

Kolpo-Cystotomy by Electro-Cautery, with remarks on other methods of operating. By John Byrne, M. D.

Rules and Regulations of the Board of Health, State of Louisiana. New Orleans.

Report to his Excellency, the Governor. The Thirty-Eighth Missouri University Catalogue. 1879-1880.





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